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Neil B. Hall

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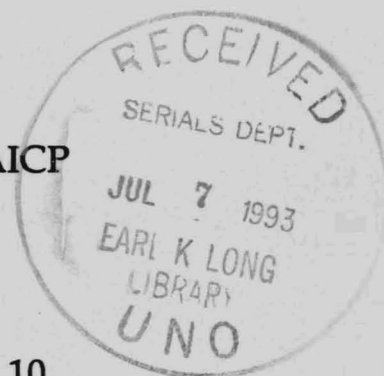
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The Problem of Idiographic and Nomothetic Space: Towards a Metatheory of Urbanism

Neil B. Hall, AIA, AICP



Working Paper No. 10

April 1992

COLLEGE OF URBAN AND PUBLIC AFFAIRS
UNIVERSITY OF NEW ORLEANS

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Neil B. Hall.

Division of Urban Research and Policy Studies
College of Urban and Public Affairs
343 Math Building
University of New Orleans
New Orleans, LA 70148
(504) 286-7106
(504) 286-6272 fax

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**THE PROBLEM OF IDIOGRAPHIC AND NOMOTHETIC SPACE:
TOWARDS A METATHEORY OF URBANISM**

Concepts which have proved useful for ordering things easily assume so great an authority over us, that we forget their terrestrial origin and accept them as unalterable facts. They then become labeled as 'conceptual necessities', 'apriori solutions', etc. The road of scientific progress is frequently blocked for long periods by such errors. It is therefore not just an idle game to exercise our ability to analyze familiar concepts, and to demonstrate the conditions on which this justification of their usefulness depends.

— *Albert Einstein*

Hegel makes man *the man of self-consciousness* instead of making self-consciousness the *self-consciousness of man* of real man, man living in a real objective world and determined by that world. He stands the world on *its head* and can therefore dissolve *in the head* all the limitations which naturally remain in existence for *evil sensuousness*, for *real man*.

— *Marx and Engels (1965, p. 254)*

The fate of community...might well be decided by specific historical circumstances rather than the inexorable logic of urbanization and modernization.

— *Thomas Bender (1978, p. 32)*

Important developments may not be in broad ideological positions but in the specifics of how people are organized to conduct functionally important activities. Presumably, this is roughly what Marx had in mind when he wrote of turning Hegel on his head.

— *Clarence Stone (1989, p. 221)*

Urban Studies is more than a nominal account of life in the big city. It is a vast interdisciplinary field requiring a deep understanding of the interconnectivity of individual biography, historical processes, material cultures, and spatial patterns. Interest in the city and city life -- among both theorists and practitioners -- continues to grow with the changing political, social, technical, and economic dynamics of the world-system. But the failure of the postmodern movement to find the slightest hermeneutical evidence of *anything* in the urban experience -- a failure perpetrated by partial theories, incomplete reports, incessant word-play, and inappropriate reductionism -- demands a reconsideration of the metatheoretical approach to mediate opposing philosophical assertions of ontology, epistemology, and methodology.¹ Without such unity, the entire field of Urban Studies is too easily bifurcated into parallel inquiries of natural science and social science by the cartesean duality of body and mind.² Even as preeminent a scholar as David Harvey, whose cumulative work represents a tremendously important step towards holistic unity in urban thinking, falls into this trap in his two-volume *Studies in the History and Theory of Capitalist Urbanization* (1985) where he considers the urbanization of capital and the consciousness of humans as separate issues.³ Thus, the bifurcation of the urban landscape into nomothetic and idiographic space -- yet another manifestation of cartesean duality -- is a major hurdle to the development of a unified metatheory of the urban condition.⁴ Harvey himself later recognized this in his introduction to *The Urban Experience* (1989), writing:

Theories provide cognitive maps for finding our way in a complex and changeable environment. The cognitive map may not be stable or even coherent. Experience leads us to construct, transform and modify it all the time....The problems (of partial theories and incomplete reports) become more acute when we seek some meta-theory of the urban process, by which I mean a theoretical framework that has the potential to put all such partial views together not simply as a composite vision but as a cognitive map that shows how each view can itself be explained by and integrated into some grander conception of what the city as a whole, what the urban process in general, is all about (p. 2).

My purpose in writing this paper is to deconstruct and critically analyze the standard urban metatheories and to determine whether they in fact represent structurally integrated cognitive maps or are simply cut-and-paste assertions of partial theories and incomplete reports. I use the term deconstruction not in the context of *defamiliarization* popular in literary deconstruction as an activity without limits, but in a proactive role which

"means that the deconstructive response initiated by the discovery of figures of speech and signicatory ambiguity within the explanatory structures of social scientific discourse should aim at isolating and removing them and their further effects, *as well as the reconstruction of the affected parts*, rather than at the celebration of the freedom inherent in language" (Woodiwiss, 1990, p. 33, italics mine).

Through my project I hope to move the field of Urban Studies from *interdisciplinary* study to *nondisciplinary* study. In doing so, I will investigate whether the fragmentation of philosophical positions in metatheory corresponds to ontological distinctions in the reality of urban experience or is simply a reflection of the ideological epistemology of institutional modes of inquiry. The term *Urban Studies* itself seems to betray a methodological bias. The

semiological values of candidate titles for a reconstructed field of knowledge are similarly problematic. Perhaps closest to my desired meaning is *human ecology*, a term tainted by its past association with the Chicago School of Sociology. *Urban Science* is too closely associated with the positivist abstraction of mathematical models. *Urban Affairs* plain sounds too nominal. *Urbanization* successfully signifies becoming but at a devaluation of the city as object. *Urbanism* adequately conveys the character or condition of city life but fails to evoke the sense of large-scale material forces inherent in our understanding of social, economic, and political processes. Despite its shortcomings I choose the term Urbanism and use it as both a "thing in itself" and a "vantage point from which to capture some salient features in the social processes operating in society as a whole" (Harvey, 1973, p. 16). Thus Urbanism is both form and process (McHarg, 1971), and as such a succinct linkage of ontology and epistemology crucial to our understanding of cities and city life. In this paper I refer to the prevailing academic paradigm as *Urban Studies* and to a proposed nondisciplinary metatheory of fact and scholarship as *Urbanism*. I join Harvey in his call for a rationally defined urbanism:

"The complexity of urbanism is not to be attributed to the inherent complexity of the phenomena in itself but reflects merely our ability to weave an intricate woof of argument around the urbanism concept. It follow from this that we cannot promote an understanding of urbanism through interdisciplinary research, but we can promote an understanding of disciplinary contributions through a study of urbanism" (1974, p. 16).

The problem of intact metatheory

Every few years or so, scholars descend into the wine cellar of academic consciousness to ritualistically turn Hegel's dialectic upside-down in the hope of improving it with age. Materialists and idealists⁵ alike take turns pointing the bottle this way or that, never quite savoring the irony that the teleological synthesis of such interplay itself moves in dialectical fashion, nor that wine is best poured on its side, leaving behind the residue of both tainted theory and impure description. For this reason, Harvey enjoins us to privilege neither passive understanding nor active participation in the quest for knowledge but to ride the tension between the "rich diversity of urban experience" and the "encompassing vision" of metanarrative in order to further human creativity in both theory and practice (1989, p. 4). There are two tasks implied here. One is to integrate the virtual realities of idiographic and nomothetic space which are themselves derived from the self-constituting positions of individual theories. The other is to develop a pedagogical model which extends knowledge from theorists to practitioners in order to encourage the use of appropriate methodologies of inquiry and technology which themselves recognize the distinctive and mutually informative nature of theory and practice. Without a philosophical base -- which I will show underlies all the standard metatheories which seek to describe and explain the urban condition -- there is little pretext for discourse.⁶ Even the validity of the traditional *non*-metatheoretical approach to learning -- at least in Western societies -- is based on the philosophical assertions of Descartes' theistic dualism (Sprigge, 1984). It is

against this duality which Daly and Cobb argue in their call for an integrated curriculum of natural and social sciences, an argument I will renew in the closing remarks of this paper:

"Our polemic...is not against disciplined thinking but against its canalization into departments and its idealization of methods that encourage excess abstraction...the *organization* of knowledge in the university such as to work against its contribution to the broad human need for understanding. The more successful and exclusive are disciplinary goals, the less the contribution of the discipline to true understanding. The result is an 'information age' but little comprehension of our real condition" (1989, p. 124-125).

My project incurs three risks, which themselves manifest the latent contradictions inherent in the naive amalgamation of partial theories into an interdisciplinary curriculum. Each of these risks must be addressed, and the contradiction mediated, before moving on to the actual project of deconstruction.

1. The ontological problem in deconstructing metatheory

Koestler (1970) argues that in the process of reducing metatheory to its parts for analysis, the essence of its structural integrity may be inevitably lost, and its validity falsified.

To respond to this objection, I argue with Derrida (1970) the epistemological and methodological necessity of utilizing cartesean duality despite the impossibility of making it acceptable as ontological truth. In other words, the language of metanarrative can be seen as criticizing *itself*. Thus the deconstructed parts of metatheory, while of questionable truth-value outside

their own context, retain value as methodological instruments to "step outside" the realm of metaphysics. There is a danger here, in that postmodern thinking tends to see totalization as useless and impossible: *useless* because it invokes a vain quest for an infinite richness which it can never master and *impossible* not because of its infinite size but because of the absence of a true center on which to focus significance (Derrida, 1970; Sarup, 1989). In opposing this position, I argue with Kant that while sentience is key to the construction of reality, there must exist a *thing-in-itself* which registers in our consciousness as the cause of our subjectivity. Entrikin summarizes the Kantian position as an understanding that "reality is an irrational continuum made rational through the application of concepts" (1991, p. 95). In this paper I search for clues to that reality, employing the metaphors of idiographic and nomothetic space as "methodological instruments" while holding on to the possibility of reasserting the irrational as a valid and reliable ontological construct.

2. The epistemological problem in deconstructing metatheory

A metatheory may be uninformed by empirical evidence which establishes not only the validity of interesting facts standing alone, but patterns of detail which provide a contextualization crucial to theory building (Stone, 1989).

Concerning the danger of empirically uninformed theory, I argue with Harvey that theory and evidence are both human constructs, that "the idea that there is something called 'experience' unmediated by imagination (is) as unacceptable as the equally misguided view that facts and data exist independently of theory" (1989, p. 14). Stone himself makes this clear when he

says that "comprehensive description, even if highly detailed...involves selecting some features and neglecting others. It entails, not just judgment, but prejudgment as well" (1989, p. 255).

3. The methodological problem in deconstructing metatheory

Empirical outcomes in social systems are always contingent, and the best we can do "is to develop an adequate conceptualization of necessary relations and discover the coexistence of necessary and contingent relations in any given empirical context" (Pinch, 1989, p. 48-49).

Deconstruction is the process of rhetorical close-readings that "seize upon" the fact that philosophy -- like literature -- represents a *textual* construction of reality. In other words, deconstruction involves a "psychoanalysis" of logocentric narratives and attempts to draw out conflicting logics with "the object of showing that the text never exactly means what it says or says what it means" (Norris and Benjamin, 1988, p. 7). As Harvey (1989) points out, metatheory may well be a house of empty rooms requiring time to take up questions of contemporary relevance. In deconstructing urbanism, the tension between realist and positivist methodologies pulls apart the precarious union of partial theories and incomplete reports, leaving us free to reconstruct a new program contextually relevant to our time and space. In this manner a deconstructive analysis "opens the possibility of further social, political-economic, sexual-political, and cultural revolutions, as opposed to closing them off in the aprioristic monumentality of a formal scheme" (Ryan, 1982, p. 8).

Rationale

One manifestation of the nondisciplinary nature of Urbanism, which offers a useful case to approach the issues at hand, is the reassertion of space in critical social theory developed among others by Thrift (1983), Gregory and Urry (1985), Saunders (1986), and Soja (1989).⁷ In his work on the structure of scientific revolutions, Kuhn (1970) rejects the conventional notion that scientific breakthroughs are the result of an orderly, progressive aggregation of knowledge. Critical changes, he argues, come about when established paradigms no longer explain the anomalies which present themselves to the scientific community. The significance of the movement to place social action within a context of an historical spatiality is summarized by Harvey's observation that "the incorporation of space has a numbing effect upon the central propositions of any corpus of social theory" (1986, p. 142).

According to Daly and Cobb (1989), the abstracted knowledge of contemporary society which passes for a deep understanding of anthropocentric ecology is derived from the disjointed research agendas of conventionally organized academic departments. Sayer (1988) sees the academic recognition of space as tied to a pedagogical movement concerned with developing theoretically informed empirical research. The reassertion of valued ideology, in the form of new paradigmatic thinking, is necessary to remedy the anomaly of positivist models which emphasize "a marked preference for measurement and quantification, and a tendency towards social structural explanations as distinct from those which refer to human intentions and motives" (Abercrombie, Hill, and Turner, 1988, p. 190). This

drive to unify theory and practice is at the heart of the issue because the university is not only the marketplace for the extension of theoretical knowledge to the practitioner but for the feedback of empirical evidence to the theorist. Rothman and Hugentobler recognize the importance of this information exchange in their essay on *Planning Theory and Planning Practice*:

"Planning finds itself increasingly faced with the absence of a guiding theory that would allow for a more unified approach to practice. If planning is indeed to give up the value-free technician's approach to social problem solving, a more comprehensive theory about social problems will have to be developed, capable of providing a framework in which different professions in the social arena are able to define and locate themselves" (1986, p. 23).

Organization of the paper

In this paper I rehearse four standard metatheories used in Urban Studies to explain the social production of space: human ecology, marxian structuralism, marxian political economy, and sociospatial dialectics. In each instance, I deconstruct the representative model into component parts, themselves partial theories borrowed from more specialized fields which Gottdiener (1985) lists as primary contributors to new paradigmatic thinking in the field of Urbanism: sociology, economics, and geography.⁸ The contradiction of materialist and idealist propositions evidenced in the component parts of metatheory can thus be seen as problematic to its structural integrity and overall validity as a model of urban reality.

From the dialectical clash of materialism and idealism I seek to develop a *contextual realism* – which I address in my closing remarks – as the ontological

basis of Urbanism. To come to *know* this reality requires a mediation of what I have called idiographic and nomothetic space, empirically- informed mental topographies which are epistemologically constructed by the tension between subject and object in the urban experience. *I seek as metatheory that which structurally unifies subjective self and objective reality through the self-constituting aspect of human agency.* To further that understanding, I conceptually define *space, place, region, and locale* and introduce an ontology of four-dimensional timespace. This replacement ontology limits and delimits epistemological approaches which have a positive influence on the choice of methodologies useful to urbanistic study. In closing, I outline a pedagogical framework which I propose as a marketplace for the transference of knowledge between urban theorists and planning practitioners to spark a Kuhnian revolution in the study of cities and city life.

The idiographic and nomothetic meanings of space

The conceptualization of theoretical terms such as *space, place, region and locale* – already garbled by the proliferation of proprietary metonymy – is further exacerbated by the academic debate over idiographic and nomothetic approaches to inquiry. Sayer (1988) offers some consolation by asserting that both contextualizing and law-seeking approaches have validity, because some social structures (such as culture) are strongly influenced by time and space while others (such as world-systems) are more durable and pervasive. The existing field of Urban Studies has for the most part avoided ontological and epistemological positions by asserting as value-free both

idiographic and nomothetic research methods. However, this has had the effect of trivializing the issue of totalization through the institutionalization of fragmented theories as "multiple realities". I will eventually argue for a contextual realism which recognizes temporal variation in spatial ontology based on material differences in timespace and the reflexive nature of human narrative. But the validity and reliability of that ontology cannot be viewed as solely contingent on the subjective viewpoint of the observer without weakening the dialectical relationship between materialist and idealist propositions. As a minimal concession to materialism, Urbanism must assert the pragmatic view that theories represent potentially useful fictions to be retained or discarded according to considerations of convenience, purpose, simplicity, or elegance (Hammersley, 1979). But it can in no uncertain terms, as Castells warn us, abstract spatial structure from social process, for

"to consider (space) independently from social relationships even with the intent of studying their interaction, is actually to separate nature from culture and thus to destroy the first principle of any social science: that matter and consciousness are interrelated, and that this fusion is the essence of what history and science are each about" (1983, p. 4).

A key factor in nondisciplinary study is the creation of interconnective synergetic relationships so that the individual disciplines are logically recognizable both as separate academic fields of study *and* as indispensable parts of a greater whole. Thus in nondisciplinary study narrative and analysis are combined in a mutualistic relationship which Stone calls "explicit theorizing", recognizing that "in the cold light of experience, both theory and evidence are human constructs, inevitably imperfect and limited in their capacity to explain

the world around us" (1989, p. 254). The more complex a theorization the more it will *resemble* description. But the success of theory depends on a well-nurtured feedback loop linking hypothetical constructs and everyday human activity. People are not just actors reading prepared sociological scripts. Rather they improvise and muddle their way through contingent events in ways which frustrate prescience. Stories are lived as stories, not merely proposed as a narrative form of historical writing (Carr, 1986). Thus researchers who do their homework draw on both idiographic and nomothetic traditions because explanation alone is inevitably parsimonious. Stone points this out in his call for an understanding of history as the conjunction of factors which change over time:

"I do not deny that there are regularities in human behavior; I only assert that something as complex as the shaping of an urban regime must be understood as a confluence that itself is not permanent. By observing the flow of events over time, we can see what combination of factors have recurring weight and what changing factors alter the course of events. But complex causation and few cases make analysis difficult. Moreover, the historical process is not mechanical because the flow of events is much affected by human intentions, understandings, and misunderstandings. As they change, the conjunction of factors change, complicating explanation" (1989, p. 257-258).

My position that the most complete description of reality entails both idiographic and nomothetic inquiry is not without its problems. The best carpenters and their handiwork are known by how few tools they use, not how many. I am well aware of the danger of "rampant eclecticism" which Woodiwiss (1990) sees as permeating postmodern thinking. In an effort to avoid reductionism, it is also necessary to avoid redundancy, as both positions entail

ambiguity. This danger is inherent in the semiological play of dualistic thinking, which Matthews claims was apparent in the intended mediation of idiographic and nomothetic space by Parks:

"The existence of two analyzable "orders" of social forces in the real world, the ecological order of unwilled, symbiotic interaction and the moral order of conscious meaning and willed institutions, which affected each other, meant that the student of society must employ both the analysis of consciousness and of external competitive forces. He must both explain social phenomena, in the sense of discovering the causal forces which mold them, and make them intelligible, in the sense of revealing their functions for and conscious meaning to the people who live them (1977, p. 133-134).

The spatial analysis of urban ecology

The ecological perspective was first advanced in the early twentieth century by Robert E. Park, Ernest W. Burgess, Roderick D. McKenzie, and others at the University of Chicago. It was the first comprehensive urban social theory, developed at a time "when American sociology was gaining institutional recognition as a discipline but lacking an indigenous body of theory" (Saunders, 1986, p. 52), quite similar to the current state of affairs in the fledgling field of Urban Studies. Our interest in human ecology as a standard model for the social production of space is twofold. First, it is the origin of "the dominant theory of urban development...that cities are the outward manifestation of processes of spatial competition and adaptation by social groups which correspond to the ecological struggle for environmental adaptation found in nature" (Cooke, 1983, p. 133). As such it demands our attention as the theoretical foundation of both contemporary urban ecology (Berry, 1977) and

regional science (Isard, 1975), and more loosely the analytical use of all econometric models. Secondly, a deep understanding of the collapse of the ecological paradigm has pedagogical implications for the success of my own project of metatheory. In particular, human ecology suffered from the internal contradiction of realist epistemology and positivist methodology which stretched dialectical reasoning beyond the limits of usefulness. The lesson reminds us that the semiological play of postmodern theory can reach a point of diminishing return if we move too far to "step beyond" philosophy. This is what Katznelson warns us when he describes the discovery by Levi-Strauss of the Tupi-Kawahib, "totally untouched by European civilization. But since he and they lacked a common system of signs, he found their culture unintelligible. Having found them, he could not know them" (1981, p. 5). The more eclectic our methodology, the greater the probability that the data we collect -- what Leshan and Margenau (1982) call *epistemic feedback* -- will be invalidated by inappropriate instruments of inquiry.⁹

The foremost advocate of what became known as the Chicago School of human ecology was Robert Park, who studied pragmatic philosophy under John Dewey at the University of Michigan before entering a career in journalism. Park received his doctorate from Heidelberg, where he encountered the symbolic interaction of Georg Simmel. Simmel proposed that the relationship between the invisible world of social symbols and individual human consciousness could only be studied phenomenologically in the formal structure of fleeting encounters (Collins & Makowsky, 1989). Thus Simmel, like Kant, embraced a critical philosophy which accepted the possibility of the

empirical induction of aprioristic knowledge (May, 1970). More specifically Simmel took the neo-Kantian position that the world was formless and open to multiple descriptions and that "the patterns that we perceive, and the cognitive structures that we use to make sense of our perceptions, were regarded as human constructions devised on the basis of human values" (Hammersley, 1989, p. 28). The neo-Kantians emphasized their rejection of positivism by asserting the causal validity of myth, religion, and history which Kant had placed beyond the realm of sure knowledge.¹⁰ But Park was also influenced by the writings of Emile Durkheim, from whom he derived his methodological framework, and Charles Darwin, from whom he derived his theoretical paradigm (Saunders, 1986). The impending clash of social psychology and social ecology in Park's thinking becomes fully evident in comparing the phenomenology of Simmel with the positivistic approach of Durkheim.

Durkheim considered the human condition to be inherently egotistical, requiring social control in the name of morality and organizational efficiency, which he called "conscience collective". In doing so he opposed the utilitarian tradition of British economic philosophy, which explained social phenomena by reference to the actions and motives of individuals. In contrast, Durkheim saw sociology not as the study of individuals but "social facts", asserting a realist perspective that societies "had their own realities which could not simply be reduced to the actions and motives of individuals, and that individuals were molded and constrained by their social environments" (Abercrombie, Hill, and Turner, 1979, p. 70-80). Unlike Simmel's phenomenological approach to the collection of empirical data, Durkheim zealously asserted a positivist

methodology inappropriate for his realist epistemology. Those concepts which Durkheim could not operationalize and measure he deemed meaningless.¹¹ Thus, Park's incorporation of Durkheim's methodological approach becomes problematic for a critical understanding of the hermeneutic circle far more representative of the urban condition.¹²

Park moved even further away from a recognition of self, drawing upon the theories of Charles Darwin to assert that the same natural forces which shaped plant and animal communities played a significant role in the evolution of human communities. Here Park was more concerned with what he called the *biotic* than the *cultural*. However, this did not mean that human ecology denied "the relevance of consensus and culture in the study of social life; only that it concentrated on the unconscious and asocial aspects as its specific area of interest" (Saunders, 1986, p. 55). As later developed by McKenzie human ecology considered the structural growth of community

"in successional sequence not unlike the successional stages in the development of the plant formation. Certain specialized forms of utilities and uses do not appear in the human community until a certain stage of development has been attained, just as the beech or pine forest is preceded by successional dominance of other plant species. And just as, in plant communities, successions are the products of invasion so also in the human community the formation, segregations, and associations that appear constitute the outcome of a series of invasions" (Hawley, 1968, p. 14).

For Park, the city is a dynamic environment in which spatial equilibrium is continually restored through the "tooth and claw" struggle of the economic competition for scarce resources available to the human community. Saunders (1986) attributes this position to Park's understanding of Emile Durkheim's analysis

of the division of labor. Durkheim argued that urban populations stimulate competition through growth, leading to functional specialization. Likewise, Park held that "an increase in population size within a given area, together with an extension of transport and communication networks, results in greater specialization of functions and thus stronger ties of interdependence" (Saunders, 1986, p. 56). For Park, the best-adapted, fittest social groups inevitably dominated scarce resources such as land, creating socially and culturally homogeneous "natural areas" such as the ghetto or the suburb. Park saw these patterns of land use and spatiality as the empirical manifestation of ecological forces he called concentration, centralization segregation, invasion, and succession. McKenzie refers to these forces as "the tendency in time toward special forms of spatial and sustenance groupings" (Hawley, 1968, p. 23). Thus, in human ecology individualistic human agency is constrained by a spatial organization itself determined in relation to the environmental resistance of such factors as geography, economy, culture, technology, and political reality. For Park these factors are objectified as concrete facts, highly susceptible to empirical measurement. But he also considers them "as if" they are social facts for the convenience of his methodological approach. In other words, "the very apprehension of a social collectivity as a thing is necessarily conceptual rather than phenomenal. The commitment to holism thus necessarily undermines the empiricist methodology by postulating a reality beyond direct experience" (Saunders, 1986, p. 63). This thinking, which borrows from Durkheim's own wrestlings with realism and positivism, represents space as the monocausal effect of predetermined human activity. The inevitable outcome of these

processes, despite their appearance of dynamic activity, is the maintenance of static equilibrium (Cooke, 1983). In other words, human ecology places social relations beyond human control, reducing history to metaphor independent of the rich contextuality of narrative texts.¹³ While there is room for a social construction of nature in ecological thinking, the inescapable karma of technology and the built environment is captured in McKenzie's analysis of human intervention:

"Ecological processes always operate within a more or less rigid structural base. The relative spatial fixity of the road and the establishment furnishes the base in which the ecological processes function. The fact that the movements of men and commodities follow narrow channels of rather fixed spatial significance gives a structural foundation to human spatial relations which is absent in the case of plant and animal communities" (Hawley, 1968, p. 32).

In the sense that human ecology represented an attempt to develop a systematic and scientific explanation of urban patterns and culture it could be seen as a sub-discipline of sociology, concerned with the study of the city as opposed to the study of institutions, education, and family. But through its seminal investigation of how human populations adapt to their environments, human ecology also asserted a proprietary framework which transcended its role as a categorical sub-discipline. Thus human ecology represents both a branch of sociology dealing with the empirical problem of spatial analysis and a body of knowledge essential to all the social sciences.

On the surface this seems to offer the holistic structure I seek to develop a metatheory of Urbanism. Yet instead of moving in dialectical fashion towards a teleological synthesis of aprioristic and empirically- derived knowledge, the

inherent vitalism of human ecology atrophied in the rigidity of its economic reductionism. Contemporary criticisms argued that human ecology explained locational activity purely in terms of economic maximization, ignoring the symbolic value of space and the role of sentiment in rational decision-making (Saunders, 1986). Revived by Amos Hawley and Otis Duncan as contemporary urban ecology, it quickly "degenerated into the minute statistical examination of urban areas" (Abercrombie, Hill, & Turner, 1988, p. 260) archetypical of all analytical approaches to space and spatiality. In all its variants, human ecology dehumanizes individual behavior in two ways: first it emphasizes sociobiotic forces manifested at the structural level of society rather than at the level of everyday phenomenology and secondly it employs both analytical abstraction and economic reductionism to operationalize its functionalist paradigm.

The metanarrative of human ecology did unify geography, economics, culture, technology, and political reality. But it privileged geography "as if" it was a social fact, i.e. as the reification and crystallization of *homo economicus* (Lea, Tarpy, and Webley, 1987).¹⁴ But Park's position was never based on a true commitment to realist ontology. Instead, it was a matter of convenience to explain the failure of positivist methodology to measure biotic community with the same degree of success with which it could measure social activity.¹⁵ Had Park balanced Durkheim's collectivity with Simmel's subjectivity he would have better understood that as the empirical manifestations of culture "acquire fixed identities, a logic and lawfulness of their own...this new rigidity inevitably places them at a distance from the spiritual dynamic which created them and which

makes them independent" (Ritzer, 1988, p. 147). This is the danger of positivistic measurement: *by its nature that which can be measured quantitatively is not the social fact but the reification of social fact; hence positivistic inquiry can only provide evidence but not accurately describe realist structures.* Furthermore, the use of variable analysis inherent in positivist methodology suggests a tolerance of exceptions which are the growth points of science and which would otherwise force the reconceptualization of conventional theories (Kuhn, 1970). It remains for Marx to provide us with a revolutionary perspective beyond the static equilibrium of the ecological paradigm.

A brief rehearsal of marxism

An adequate rehearsal of Marx, while useful to an understanding of marxian political economy, is obviously too grand an enterprise for the scope of this paper. Instead I will present a minimal overview of orthodox marxist thinking preliminary to a more critical analysis of key assertions in marxian political economy, marxian structuralism, and socio-spatial dialectics. Because of the rudimentary level of this exposition, I will avoid the citation of uncritical remarks. However, I wish to acknowledge Miller (1982), Ryan (1982), Abercrombie, Hill, and Turner (1984), Saunders (1986), Ritzer (1988), Collins and Makowsky (1989), and Lauria (1990) as sources for the following narrative presentation.

As a student Karl Marx prepared himself for a career as a German academician: he drank in taverns, acquired debts, fought duels (earning the requisite scar), and studied philosophy. While at the University of Berlin, Marx became involved in an intellectual movement known as the Young Hegelians,

political activists who followed the idealistic philosophy of Georg Hegel. Hegel spent a lifetime developing a comprehensive philosophical system which would incorporate all knowledge – past, present, and future -- into a grand metatheory of reality, what today is variously called by quantum scientists "the history of time" or "the theory of everything". From Kant's assertion that the ethical basis and teleological rationale for human activity is derived from reason (as opposed to expediency, law, or culture) came Hegel's assertion of the Absolute Idea, the rational metaphysical essence of all reality revealed throughout history as the transcendental flow of reason to consciousness. The purpose of pedagogy, according to Hegel, is threefold: (1) to articulate the internal rational structure of the Absolute; (2) to demonstrate how the Absolute manifests itself in history and nature (i.e.-time and space); and (3) to explain the final purpose towards which the Absolute is directed. Against Kant's epistemological limits of possible knowledge, Hegel argued for the ultimate intelligibility of all existence, asserting that reality is understood as the Absolute objectifying itself in nature as material form and in history through a process of self-development called the dialectic. It is the dialectic which Marx seized upon in his optimistic hope for revolutionary change, substituting a materialistic base for hegelian idealism in his now famous quip that Hegel had simply to turn his dialectic right side up.

In borrowing the dialectic, Marx retained Hegel's notion that social, cultural, and political development -- hence all history -- depends on the internal clash of paired contradictions called thesis and antithesis, leading to a revolutionary synthesis which itself would inevitably split into a new disequilibrium of thesis and

antithesis. Marx did not deny the reality of linear causality popular in mainstream sociology but rather asserted the superiority of historical materialism as a structurally consistent metatheory of knowledge. By historical materialism Marx meant a materialist interpretation of history in which social facts ("superstructure") were determined by the production of material things ("base"), albeit the superstructure might serve as a "pre-condition" for the mode of production. Through this relationship, Marx privileged economics as "first-among-equals" in the social sciences. He defined the economy itself in terms of the three interrelated elements of labor, capital, and means of production. It is this reference to base/superstructure from which critics have inferred economic reductionism, even though such abstraction would clearly have defaulted the dialectic process. Whereas Simmel's dialectic operated in the microscopic world of dyads and triads, Marx's dialectic thrived on the richness and complexity of large-scale social structures and human actors moving teleologically through time. In dialectical thinking, humans are always in danger of being slain by those objects of their own creation. Simmel, like Max Weber, saw the world as an iron cage of objective culture from which there was no hope of escape. He called the phenomena by which social and cultural products develop their own significance and their own laws *more-than-life* to distinguish it from the social reproduction of thoughts and life he called *more-life*. In marxist terms, the ideological transformation by which we conceive of economic objects, social relations, social class, and social structures as natural, universal, and absolute is called *reification*.

In the context of economic life, reification is represented by the process of

commodity fetishism. For example, the only contact between a shoemaker and a potter is the exchange of wares at the marketplace. These objects come to stand for the social relationship. When the shoemaker and the potter think about that relationship, their thinking about the products they made and received in exchange mask the reality of the social relationship. In large-scale capitalist societies commodity fetishism sugarcoats the appropriation of labor, making the bitter pill of exploitation easier to swallow. But the underlying reality – basically carried out at a subconscious level – is that the market depends on social relationships to regenerate moral capital just as it depends on material relationships to regenerate natural capital (Daly and Cobb, 1989). As Daly argues in his treatise on dynamic equilibrium,

"of all the fields of study, economics is the last one that should seek to be 'value-free', lest it deserve Oscar Wilde's remark that an economist is a man who knows the price of everything and the value of nothing" (1991, p. 4).

Marx wished to avoid the sort of epistemological confusion we find in Durkheim's methodology, whereby social facts are to be treated as things, hence to be studied not philosophically but empirically in a positivist framework. For Marx, such quantitative abstraction was, in essence, running numbers for the Man.¹⁶ Although Marx is best known for his views on the relationship between economic life and other social institutions, he valued highly the potential of human self-consciousness (*species-being*) and the struggle for self-actualization which neo-marxists now call "individuation". Thus for Marx any masking of the human spirit, such as the *alienation* of workers from the enjoyment of their labor, the fruits of their labor, the company of their fellow

employees, or their personal individuation was seen as exploitative.

Likewise, I contend that Marx would have seen the abstract and quantitative methodological masking of the paramount reality of human self-consciousness as equally exploitive. For Marx self-consciousness was determined not by hegelian consciousness independent of self but by human residence in the real objective world. By "false consciousness" Marx meant incorrect assessments by capitalists and workers (shall we add academicians?) of how the system worked and of their own roles and interest in it. To ensure against methodological masking through erroneous measurement we must interrogate empirical data and historical accounts with theoretical concepts, a methodological technique which has been called "realist concrete study" by Sayer (1988) and "explicit theorizing" by Stone (1989).

The epistemological and methodological integration of Marx's dialectical framework leaves no room for space between social facts and social values. Unlike mainstream sociological thinking, Marxism asserts both the impossibility and the undesirability of keeping values out of the study of the human condition. Marx ridiculed as myth the idea of the dispassionate scientist. All research is value-laden, giving researchers a sense of commitment, motivation, and insight they would less enjoy as impartial observers.

Marx's commitment to human individuation through social emancipation is to be brought about through concrete action, or *praxis*. Such activism is to be approached intellectually through the development of a critical metatheory which will pre-condition society for change, and politically through specific acts of revolutionary significance. In his concern for the human condition Marx

hoped for a non-violent revolution. But in fact political marxists, growing impatient with the gradual pre-conditioning of society, have asserted (as did Che Guevara) that the best theory comes from the barrel of a gun. Although Marx predicted that revolution would follow an historically necessary moment of class conflict between the bourgeoisie and the proletariat, the most violent levels of frustration have erupted in the pre-capitalist societies such as Russia, China, and the colonial and emergent states of the Third World. The belated renewal of interest in Marx and marxism among Western academicians in the 1970s and 1980s followed the indigenous expression of that same frustration in the United States and Europe.

At this point, I turn to a discussion of marxian structuralism, in part because its excessive determinism represents a *caricature* of the marxist position more quietly asserted in marxian urban political economy. By purposely begging the question of human agency, I hope to rhetorically construct against marxist theory a paradigmatic crisis which will precipitate a Kuhnian revolution in the field of Urban Studies.¹⁷ In deconstructing marxian structuralism I also intend to investigate just how far metanarrative can be stretched without invoking the epistemological imperialism which seems to linger in the configured and reflexively structured closets of marxist theorists.

Marxian structuralism

If we have learned anything from the structuralist controversy it is that there is no privileged mandalic model for understanding human history (Macksey and Donato, 1971). Marxian structuralism is no longer the rage because the

diversity of conclusions from epistemic feedback have raised "the possibility that what we had formerly considered to be general structures were themselves geographically specific, context-dependent phenomena that had mistakenly been treated as general" (Sayer, 1989, p. 255). I revisit marxian structuralism because it holds out the possibility of forensically answering the question as to what commonality was fatally inherent in both the marxian and ecological models of structural determinism. If so there is the added motivation that the identification of the common crises which destroyed human ecology and marxian structuralism might lead to the development of new thinking to replace marxian urban political economy as the prevailing paradigm in social science.

In sociological terms, structural theory refers to social structures, or "enduring, orderly and patterned relationships between elements of a society" (Abercrombie, Hill, and Turner, 1988). Popularized in the 1950s as functional-structuralism by its association with the eminent sociologist Talcott Parsons, the concept of social structure is rarely discussed in positivist sociology because of the inherent difficulty in verifying causal significance without the use of empirical methods. Although Parsons made specific reference to large-scale structures as opposed to the structures of everyday experience, structuralism is seen as denying human creativity and free agency through a form of determinism. A mediation of structuralism and human agency may be found, however, by recognizing the social construction of reality, pointing to the freedom of humans to themselves create social structures through subjective activity (Berger and Luckmann, 1967).

Marxian structuralism must be viewed in two ways -- as a kind of marxism and as a kind of structuralism (Ritzer, 1988). As a kind of structuralism, marxian structuralism falls in a larger framework of linguistic, anthropological, sociological, and dialectical theories which all seek universal and invariant laws that operate from the most primitive to the most advanced level of humanity. Structural marxists (who, seeing themselves as being truest to Marx's project, eschew the reformulated term 'marxian') assert that the "truly important realities of capitalist life are to be found in its underlying structure and not in the observable facts that often obscure the true nature of that structure" (Ritzer, 1988, p. 259). Thus structural marxists criticize marxian tendencies to employ positivist methods and empirical data. Finding themselves strange bedfellows with Parsons (who was a strong critic of marxism in all its variants), they argue against naive historical research, not only because as a discipline it is empirically oriented, but because historical processes cannot be fully understood without a prerequisite knowledge of underlying structure. Finally, having denied the freedom of agency as anything more than "objectively antagonistic relations", structural marxists reject all accounts of individualistic behavior, including human subjectivity and economic reductionism. To understand the impact of such thinking on urban studies in the heyday of marxian structuralism, we will look at the work of Louis Althusser and the early work of Manuel Castells.

Althusser's adheres to a contextual understanding of marxism which suggests that in reading Marx we need to know what Marx is thinking, not just what he says (Gottdiener, 1985). He postulates "two Marxs" -- an immature Marx strongly

influenced by hegelian idealism, and a scientific Marx who formulated a dialectic history based not on heroic individualism but the collective will of the masses. Capitalism, in Althusser's view, was not an historic force but a social formation of economic, political, and ideological elements -- each acting with relative autonomy until the clash of internal contradictions creates an unresolvable dilemma (*overdetermination*) leading to the temporary dominance of one element in the formation and uneven development in capitalist space. The most violent critical reactions to the marxian structuralist position are against Althusser's insistence on the meaninglessness of history and the dehumanization which accompanies an ahistoric perspective. Althusser seems to have developed a structuralism of *statis* inconsistent with Marx's own historical materialism (Ritzer, 1988). Since structure itself is dialectic and indeterminant -- *becoming* rather than *being* -- Althusser begrudgingly assigns actors a precarious agency subject to the caprice of the structural system. It was left to Manuel Castells (1977) to more fully articulate that system in his critique of capitalist space.¹⁸

Castells used marxian structuralism to criticize existing urban theories and practice and to develop new theory without ideological representation. Here Castells asserted the marxist concept of *ideology*, suggesting that current urban theory is subordinate to the class interests of the bourgeoisie and fails to break with the superficiality of material reality. This subordination precludes a deep understanding and articulation of the underlying structure (Saunders, 1986). Unlike Lefebvre, who attacked ideological planning for its colonial occupation of the spatiality of everyday life, Castells takes the more orthodox position that

ideology is foremost a capitalist tool to coopt the class consciousness of labor in the workplace. Attempts by marxian thinkers to incorporate both viewpoints brings us to a discussion of marxian urban political economy.

Marxian urban political economy

The ghetto riots of the middle sixties proved a "rude awakening" for urban scientists who believed in a reified, conservative version of the realities of city life (Gottdiener, 1985). The growing split between critical and conservative social scientists over the relevance of social inequality to urban analysis was exacerbated by the general strike of 20 million French workers in May of 1968, leading to a revived interest in marxian approaches to urban political economy (Gottdiener, 1985).¹⁹

The use of a marxian perspective in urban analysis is not without its problems, because Marx said comparatively little in terms of economic, political, and social commentary on city events and virtually nothing on the geography of city form, except for a few axiomatic remarks tying the form of settlement space to its mode of production (Gottdiener, 1985). For the most part marxian theorists were left to their own devices, developing innovative approaches in the attempt to replace the contrived explanations of regional science and human ecology – "a school of thought so deeply immersed in free market reasoning that its practitioners seem not to have been aware that there was even an alternate approach" (Logan and Molotch, 1987, p. 4). As marxism is essentially a critique of capitalism, marxian urban political economists used as their starting point an attack on neo-classical models of urban ecology

which saw the city as little more than a convenience of commerce. The failure of mainstream analysis to compare social structure to class structure or the urbanization process to capital accumulation gave its critics two avenues of attack. Accordingly, Gottdiener (1985) divides marxian critiques of neo-classicism between class conflict theories and capital accumulation theories, a taxonomy I will follow in my presentation.²⁰

1. Class conflict theory

In his analysis of spatial patterns and class conflict in the Washington Heights-Inwood district of northern Manhattan, Katznelson (1981) searched for a "convincing theory of the social structure of capitalist societies" (p. 207) to offset the failure of marxist logic to explain why nowhere in the industrialized West has the proletariat lived up to Lenin's revolutionary standard. What Katznelson found was that

"the turmoil and defiance (of the times) revealed not only the fragility of the social order and the vulnerability of local property, but also the poverty of the Keynesian assumption of a shared public interest in managed capitalist growth" (p. 91).

In other words, the urban crisis of the sixties and early seventies was not only a matter of financially and morally bankrupt City Halls, but a class conflict involving racial consciousness and neighborhood territoriality which restructured settlement space in favor of the ruling capitalist hegemony.²¹ In explaining the failure of the working class to address grievances and raise demands to improve city services relative to their everyday life, Katznelson asserts a false consciousness of "city trenches" that treats workplace and community as

separate and distinct spheres. The unavoidable conclusion of such analysis is that social groups are institutionalized by the habitualization of social and political behaviors peculiar to their territorial space (Berger and Luckmann, 1966).²² With or without their consent, Katznelson's underclass is exploited by their sentimental attachment to residence and everyday life.

There are three key points to be addressed concerning Katznelson's theory of class conflict. The first is that Katznelson describes the settlement and growth of northern Manhattan using the same ecological paradigm he later abandons in his marxian explanation of the unevenness of spatial and economic development in ethnic enclaves. Like Levi-Strauss, Katznelson declares as value-free the methodological duality of realist and positivist inquiry. As a result, he is able to analyze the ahistorical construction of nomothetic space while detailing the contemporary action of individualistic everyday reality as idiosyncratic space. Thus Katznelson avoids the need to consider concrete reality "as if" it was social fact, a epistemological parlor trick which proved problematic for Durkheim and Park. By privileging *here and now* as the paramount reality (i.e. "first-among-equals") Katznelson emphasizes the revolutionary potential of human agency against the backdrop of historical materialism. Harvey summarizes this position in stating that:

"Capitalism frequently supports the creation of new distinctions in old guises. Pre-capitalist prejudices, cultures, and institutions are revolutionized only in the sense that they are given new functions and meanings rather than being destroyed. This is as true of prejudices like racism, sexism and tribalism as it is of institutions like the church and the law. Geographical differentiations...frequently appear to be what they truly are not: mere historical residuals rather than actively reconstituted features within the

capitalist mode of production....The upshot is that the development of the space economy of capitalism is beset by counterposed and contradictory tendencies. On the one hand spatial barriers and regional distinctions must be broken down. Yet the means to achieve that end entail the production of new geographical differentiations which form new spatial barriers to be overcome. The geographical organization of capitalism internalizes the contradictions within the value form. This is what is meant by the concept of the inevitable uneven development of capitalism. (1982, p. 416-417).

Secondly, Katznelson's concept of hegemony is borrowed from Gramsci, who advocated a return to the hegelian roots of early marxism in order to revitalize dialectical thinking with the reassertion of subjectivity.²³ Gramsci (1971) rejected the "historical necessity" of revolution, arguing that the exploited masses could not develop a revolutionary ideology without the help of a social elite called the *intelligentsia*. Implicit in Gramsci's thinking is the assertion of Hegel's idealistic man-of-self-consciousness over Marx's materially determined self-consciousness-of-man. Having followed Gramsci down the road of hegelian marxism, Katznelson finds difficulty locating his theory of social structures in a paradigm which privileges collective ideas rather than the social structures he seeks. Like human ecology, Katznelson has trapped himself in internal contradiction. For Park, the problem was the epistemological tension between realism and positivism. In class conflict theory, the problem is the ontological tension between materialism and idealism, owing to Gramsci's assertion of dual consciousness. As Entrikin shows, marxian urban political economists such as Harvey associate the geographic specificity of individual neighborhoods -- what Park called "natural places" -- with the false consciousness of place identity, seemingly powerful "only because the actors

thought them to be so.... Consciousness, including place consciousness, is not to be considered a causal factor" (1991, p. 50). But such denial weakens "the essentially unpredictable interactions of the spatial with the economic and the political and social/cultural spheres" which Dear and Wolch (1989, p. 4) see as crucial to the power of geography. Katznelson finds himself denying the existence of the same human potential he argues must be liberated from the exploitative hegemony of capitalist space.

Finally, Katznelson uses the class conflict approach to develop a capitalist conspiracy of social control in both industrial and residential land-use decision making. Gottdiener (1985) offers a mocking critique of conspiracy theories, which

"hypothesized the existence of a capitalist class which was capable of behaving monolithically in order to orchestrate events so that they better fit the needs of that class. In some cases the capitalist class is endowed with a prescience capable of making its politically orchestrated decisions functional for the survival of the system. This approach suggests that everything which enhances the ability of the capitalist class to control society has been willed into being, or, if that sounds too conspiratorial (and many marxists prefer things to sound that way) then capitalism itself can be anthropomorphized so as to act as a whole and determine what is best for it as a system in an evolutionary fashion by weeding out whatever is not" (Gottdiener, 1985, p. 73-74).

The conspiracy theory is problematic for Katznelson's analysis because it undermines the richness and complexity of his narrative. In marxism "class" has a very specific meaning, distinguishing those who owned and controlled the means of production in society and those who did not (Saunders, 1986).

Katznelson's workers represent Marx's *class-in-itself* -- "all victimized by capitalist

fragmentation but acting itself to perpetuate its own fragmentation" (Marcus, 1975, p. 459). He reports no observation of *class-for-itself* -- those who exhibit *class consciousness* and a commitment to the direct production of useful change. The failure of Katznelson to operationalize class in a more contextual setting (a method asserted by Weber, as we will see shortly) leaves him with only two reified actors: the capitalist and the worker. Inevitably, Katznelson is forced to abandon dialectical thinking and explain spatiality and land-use patterns in terms of monocausal class exploitation.

2. Capital accumulation theory

Capitalism is a self-constituting nexus which drives the opportunistic expansion of the means of production, the wage labor force, and the logistics of sales and distribution to produce a surplus value crucial to its reproduction. This massing of surplus value is called *capital accumulation*. The locus of this activity, called *capitalist space*, is the "creation of activists who push hard to alter how markets function, how prices are set and how lives are affected" (Logan and Molotch, 1987, p. 3). Harvey (1973) refers to capitalist space as "absolute space" in which monopoly control can operate without the high cost of relocating people, goods, services, and information.²⁴ The relationship between capital accumulation and urban spatial patterns is further explained by Lefebvre:

"Capitalism has found itself able to attenuate (if not resolve) its internal contradictions for a century, and consequently, in the hundred years since the writing of *Capital*, it has succeeded in achieving "growth". We cannot calculate at what price, but we do know the means: *by occupying space, by producing a space*" (1976, p. 21).

From this perspective, capital accumulation theorists look to explain urbanization as the spatial manifestation of the accumulation process (Gottdiener, 1985). These theorists include those influenced by neo-Ricardianism (Cooke, 1983; Sheppard and Barnes, 1990) and quantitative marxism (Sheppard and Barnes, 1990; Dunne, 1991).²⁵ In this section I will summarize marxian urban political economy as developed by David Harvey in a series of writings (1973, 1982, 1989, 1990) which built upon classical marxist concepts, to which Harvey adds more contemporary aspects of advanced capitalism (also called Late Capitalism) not treated by Marx.²⁶ In the earliest work (1973), Harvey attacks the Chicago school for its nominalism, arguing that human ecology only treated the surface level of everyday life but not the underlying economic and social realities.²⁷ This theme is consistently repeated throughout Harvey's writings, culminating in his charge that postmodernist cultural forms and flexible modes of capital accumulation are merely shifts in surface appearance but in no way manifest a postcapitalist or even postindustrial society (1990).

Harvey defines the city as a built environment located by the spatial intersection of the social, economic, technological, and institutional aspects of the capitalist mode of production. Harvey explains the rise of the historical city from an undifferentiated *tabula rasa* in terms of mainstream Von Thunen

geographic analysis. But he views as inevitable the uneven development and social inequalities of sociospatial patterns due to the scramble of competition among capitalists to mobilize, extract, accumulate, and concentrate surplus value in order to reproduce capital through the production of space and control of land-use. The effects of the logic of capital accumulation are not only adversely distributed spatially and demographically, but temporally in the form of boom-and-bust cycles.

Capitalism, in the marxist critique, is subject to inexorable laws of capitalist production concealed by the superficiality of individual economic behavior. This inherent logic results in situations uniquely contradictory to the initial causal circumstance. For example, the aggregative self-interest on the part of individual entrepreneurs -- such as actions resulting in the maintenance of unsafe work environments or extended periods of layoff -- can in fact endanger the social basis for future accumulation. A second contradiction is that the accumulation of capital increases the tempo of capitalistic exploitation in response to the competitive fragmentation of the workforce, resulting in the creation of class consciousness and class-for-itself to resist the onslaught of capitalist violence. For Harvey, these contradictions provide critical insight into the laws of capital accumulation, which he summarized "in the ridiculously short space of three or four pages" and I in the totally absurd confines of one.

The capitalist production process seeks to create absolute surplus value by increasing per capita labor output and relative surplus value by increasing productivity through reorganization and fixed capital (technological improvements). This "primary circuit of capital" serves to transform wages into

wage goods (necessities) which sustain ("reproduce") labor power and luxury goods for the consumption of luxuries. To increase absolute surplus, the contradiction of capitalist logic exploits the labor force, resulting in overproduction and falling rates of profit, as well as surplus capital and surplus labor during periods of recessionary slowdown. Over time, surplus value flows through a secondary circuit to establish fixed capital (capital assets which Harvey calls "built environment for production"). Fixed capital acts as an aid to productivity and a consumption fund of consumer durables and community infrastructure ("built environment for consumption") to enclose the consumption process. Part of this capital -- for example the transportation network -- can be transferred back and forth between categories by change in use. Capital overaccumulates in the primary circuit because "switching" (rerouting the flow of investment) to the secondary circuit involves risk, a loss of liquidity (in marxist terms "the immobility of space and time"), and shareholding in the public domain. A tertiary circuit is used to reswitch investments for social expenditures, technological research, and the repression and ideological control of the labor force in direct relation to the threat of working-class resistance. Strictly speaking, this summary refers only to the *production* of capitalist space, but not to its reproduction nor demolition.

As opposed to Katznelson's monolithic capitalist class, Harvey (1989) asserts three personifications of capital who employ rents, interest, and profit to realize surplus value in the reproduction of space. The first fraction of capital consists of rentiers: landlords who collect rents directly and real estate speculators who appropriate rents indirectly. The second fraction consists of planners and

developers who seek interest and profit through construction or financial backing. The third fraction involves the circulation of "capital in general" through state intervention to insure the survival of the capitalist class: such as pork-barrel projects, tax-free enterprise zones, and the construction of military bases in economically depressed areas.

Desai (1991), in his quantitative model of alternate disaggregation strategies, shows how circuits of capital and falling rates of profit behave in an economic model called dynamic disequilibrium. An economy is in *disequilibrium* when the stock of capital decreases despite positive net investment (surplus value) in a given time period. A *dynamic* model is a model in which current values of economic variables depend on the values of those variables in previous periods of time, such as the shock of a recession or the upswing of a business cycle (Sawyer, 1989). The economic chaos of dynamic disequilibrium is what Marx predicted for capitalist societies due to the contradiction of the logic of capital. In particular, capital accumulation proves problematic for the even development of space, due to the creation of immobile capital assets of the built environment originally implanted on the landscape as an aid to production and consumption (Harvey, 1982; Smith, 1984). Such infrastructure eventually acts as a barrier to further accumulation due to its cost of maintenance and repair as well as the opportunity cost of lost surplus value. The permanence of the built environment can be removed only slowly unless there is a dramatic devaluation of the exchange value frozen in the capital assets of the infrastructure, such as accidental destruction by fire or unplanned technological obsolescence. To capitalists such structures are called "white

elephants" – to Harvey they represent "the power of dead labor over living labor", leading capital to negotiate

"a knife-edge path between preserving the exchange values of past capital investments in the built environment and destroying the value of these investments in order to open up fresh room for accumulation....The effects of the internal contradictions of capitalism, when projected into the specific context of fixed and immobile investment in the built environment, are thus writ large in the historical geography of the landscape that results" (1989, p. 83).

As I have already mentioned, Harvey describes a dualistic urban experience which reflects his concern for both capital accumulation and class conflict in the development of his marxian political economy. Yet the "urbanization of capital" and the "consciousness of urbanization" are more than an imaginative reflection of the dialectic between base and superstructure. For Harvey they represent the precise methodology by which empirical facts are interrogated by theory. Harvey asserts, as did Marx, that the task of theory construction begins with the study of the everyday life of ordinary people. This requires more than a naive phenomenology devoted to the superficiality of appearance, for in first observing people

"their conditions of life and labor, their joys, discontents and aspirations remain hidden....This masking arises because our social relations with those who contribute to our daily sustenance are hidden behind the exchange of things in the market place.... There is no trace of exploitation upon the lettuce, no taste of apartheid in the fruit from South Africa" (1989, p. 8).

In order to get behind the surface and unmask the fetish, Harvey advocates the selection of material things with which we are familiar in everyday speech

and which we use as concrete abstractions. Through materialistic reduction, we take the "path of descent from the complexity of everyday life to a simple set of concrete representations of the way material life is reproduced" and next "postulate abstract and non-observable concepts that help us see how individuals working under all manner of special conditions, intersect and interact to generate certain dynamics within the social system... conceptualized as a whole" (Harvey, 1989, p. 9). Although the validity of these concepts cannot be established through direct encounter, "the proof lies in the using, i.e. by showing how the underlying concepts can, when put in motion, help understand all kinds of surface occurrences that would otherwise remain incomprehensible. Explanatory power becomes the central criterion of acceptability" (Harvey, 1989, p. 10). From this point on, the process of inquiry is reversed to ascent through elaboration to the point where they can, in Marx's words, come to "reflect daily life as in a mirror".

Deconstructing Harvey

There is much to be admired in Harvey's nearly perfect presentation, but several areas seem to manifest the latent contradictions I earlier suggested plague the amalgamation of partial theories into metanarrative. To Harvey's credit, his metatheoretical framework is such that these contradictions cannot be neatly categorized as ontological, epistemological, or methodological. Rather each represents an anomaly which problematically interpenetrates his entire theoretical endeavor. I identify and isolate them not so much as a criticism of Harvey but -- in consideration of Harvey's success -- to argue against

any premature discontinuance of my project on the grounds of *fait accompli*. What I intend to show is that there are – to use Harvey's own metaphor – empty rooms in marxian urban political economy which must be furnished by new thinking. This will involve a paradigmatic shift away from the materialistic reduction of marxian structuralism and towards an emphasis on Marx's early concern for individuation.

1. The problem of reductionism

Wallerstein offers an interesting insight into marxian thinking, pointing out that

"Karl Marx in his life work was caught up in the basic epistemological tension of any and all attempts to analyze large-scale, long-term processes of social change: simultaneously to describe the characteristics and the principles of a "system" in its unique process of development. This tension between a theory that is necessarily abstract and a history that is necessarily concrete cannot by definition be eliminated. Just like most other thinkers facing and aware of this tension in their intellectual activity, Marx resorted to the tactic of alternating emphases in his writings. It is easy therefore to distort his interest, by pointing to only one end of this pendulum and presenting it as the "true Marx" in ways he would have rejected, and frequently did" (1991, p. 151).

I face the same dilemma in my criticism of Harvey. Moreso, because his wealth of writing rehearses not only all the ground covered by Marx but what Wallerstein calls "additional empirical reality which means that the previous theoretical abstractions must be modified" (1991, p. 151). But Harvey's project seems stubbornly unconcerned with self freely distinguishable from consciousness despite Marx's early commitment to individuation. In other

words, for Harvey the self-consciousness of man is inevitably determined by structural causality and the appearance of free agency is little more than self-delusion. Brain states and brain physiology are unmediated by human values, beliefs, and goals. In fact, Harvey's urban consciousness is simply a collective economic reduction formed around the primary growth points of individualism, class, community, state, and family:

"Within the confusion, all kinds of other sentiments, illusions, and distortions can flourish. The ferment of discontent and opposition, of understandable and entirely reasonable misrepresentations, of unintended consequences, is always part of the urban brew. Therein lies an extraordinary though often latent energy for social transformation. Capitalist urbanization gives rise to forces that, once put in place and set in motion, can just as easily threaten as support the perpetuation of capitalism. We have, in short, to confront the urbanization of consciousness as a key political problem" (Harvey, 1989, p. 230).

In introducing the issue of everyday life to his marxist framework, Harvey commends Simmel for addressing the issue but rejects phenomenology as naive. This leaves for Harvey the problem of how to derive an understanding of the urbanization of consciousness in relation to the urbanization of capital.

Desai argues this position in his critique of quantitative marxism:

"reality is not directly observable...what is more, reality may be distorted; it may be inverted at the phenomenal level. Thus prices are observed and values are not; exchange is equal but production and extraction of surplus value are unequal. This implies that merely looking at observable facts may be seriously misleading" (1991, p. 28).

Like Desai Harvey dismisses both empirical and phenomenological methodologies and falls back on the classical marxist use of money fetishism as a methodological instrument. His position against the paramount reality of

everyday life is summarized by Mohun, who warns that "a theory predicated on methodological individualism cannot reproduce the understanding of one based on class struggle" (1991, p. 59). Convinced we live in historical time as opposed to real time, Harvey is forced to argue the material abstraction of human agency as the one sure way of uncovering true reality. But this compromises the structural integrity of subjective self and side-steps the question as to "how much damage to historical materialism is caused by the fact that the phenomenon of attachment to (meaningful) ways of life...is materialistically unexplainable?" (Cohen, 1983, p. 241). Daly and Cobb (1989) argue that the absurdity of both neoclassical and marxist reductionism is clearly evidenced by gross assumptions in the theory of exchange value. One is the assumption that an individual's total wants are insatiable, which Daly and Cobb refute by asserting that "if nonsatiety were the natural state of human nature than aggressive want-stimulating advertising would not be necessary" (1989, p. 87). In support of this assertion, Lea, Tarpy, and Webley (1987) reject greed as basic to the human condition, citing empirical studies of consumptive "*bliss points*" from which any change is for the worse, hence at which points consumers are satisfied. Daly and Cobb also argue against the reductionist claim that only commodities consumed by an individual contribute to that individual's "utility function". The oversimplification of human needs prompted Sen to argue that

"The *purely* economic man is indeed close to being a social moron. Economic theory has been much preoccupied with this rational fool decked in the glory of his one all-purpose preference ordering. To make room for the different concepts related to his behavior we need a more elaborate structure" (1990, p. 37).

Harvey's constant refusal to go beyond material self-interest is the result of his dogmatic reliance on an historical materialism which links the ideal of individual emancipation with the pursuit of material interest. But humans may be indifferent egotists and interest may be relatively unimportant.

In knowing -- better than we -- what we think Harvey is very close to employing *epistemological imperialism*, a phrase used by Saunders (1986) to describe the presumption of privileged knowledge implicit in the position of Althusser and Castells. For the most part Harvey's theoretical project seems to function without regard for human response to contingent events. While he calls for a return to the street to disprove postmodern hype and voodoo economics, Harvey covers the last 10 chapters *The Condition of Postmodernity* in a collage of 74 pages. If not satire, then it is a quick sketch of the empty rooms which he himself has yet to furnish. My concern is that left uninformed by empirical observation Harvey's latent brand of structuralism would eventually come out of the closet to replace the world of individual responsibility with a clockwork orange of social and economic protocols.

"composed of ever smaller, ever more subtly 'adapted' gears; as an ever-growing superfluity of all dominating and commanding elements; as a whole of tremendous force: whose individual factors represent *minimal forces, minimal values*" (Nietzsche, 1968, p. 17).

2. The problem of reflexive thinking

Gunn (1989) argues that by linking theory to practice marxism, like hegellism, unifies theory and metatheory because Marx used reflexive thinking in which theory refers to itself as a form of self-critique. But no matter how

sophisticated its critical methodology reflexive thinking is forced to accept as a *starting point* an ontology which is at best based on exploratory research and at worse derived from aprioristic guesswork. Imagination takes on a crucial role in reflexive thinking precisely because the use of empirical research as an absolute backdrop from which to confirm or refute theoretical hypotheses is "impossible, for all empirical research is theoretically derived" (Lauria, 1990, p. 11). But by limiting and delimiting its epistemology, reflexive thinking is in danger of measuring reality on a procrustean bell-curve of self-fulfilled prophesy. Harvey claims to resolve the dilemma of phenomenological encounter by pointing to "surface occurrences" which explain the underlying concepts of realist structure. But the realist argument that contingent facts logically presuppose necessary structure (which, incidentally, Thomas Aquinas used to "prove" the existence of God) also supports the position of human ecology. In fact Harvey and Park share agreement on the empirical patterns of space and territory which they observe in capital urbanization. Where they disagree is only on the *cognitive meaning* of those patterns as representative of underlying reality.²⁸

I contend that neo-classical and marxist theory both use economic reductionism as a form of *instrumentalism*, in which imagination plays a key role in mediating the difficulties of immediate experience.²⁹ In realist epistemology this instrumentalism takes the form of "*metaphors* disguised as *concepts*, themes that carry along with them a whole unrecognized baggage of presuppositions" (Norris, 1991, p. 75). Observation is particularly problematic to reflexive thinking because it breaks with the dominant paradigm. When empirical evidence

agrees with his theoretical assertions Harvey is free to argue that the "proof" is "in the using". When the evidence disagrees, he finds it contingent and superficial. Thus Harvey brushes aside observed anomalies as less useful than explanation in refining theory, in precisely the way Kuhn has suggested that theorists

"do not...treat anomalies as counterinstances, though in the vocabulary of philosophy of science that is what they are....once it has achieved the status of paradigm, a scientific theory is declared invalid only if an alternate candidate is available to take its place" (1970, p. 77)

As a prevailing paradigm in social theory marxian urban political economy is relatively immune to the crises fermented by deconstruction. This is because a deconstructionist reading "suspends the persuasive (or meaningful) force of language in the interests of a purified logic of figure" (Norris, 1991, p. 103). In the case of realist literature, metaphor and metonymy are used in double entendre, continuously shifting meaning between politics and science. This purposeful ambiguity, called *reversal*, is revealed as a "paradoxical logic which undercuts its own referential or realist pretensions" (Norris, 1991, p. 85).

Marx's critique of the positivist method uses a method similar to reversal called *inversion*. An example of inversion is the neo-classical assertion that price is a cause and not merely a result. Similarly,

"Marx is equally critical of the positing of positive 'things' (land rent, wages, profit, and so on) which are not seen as being produced by networks of social relations that displace their immediacy and inscribe their presence to consciousness in a complex systematic structure and a multistranded history" (Ryan, 1982, p. 51).

While Marx is concerned with material reality and Derrida with philosophical

essence, both criticize positivism for its naive reading of narratives. Reflexive theorization and deconstructionism, on the other hand, both rely on a reality which unfolds with the text (Norris, 1991). As such, neither pays much attention to positive, self-evident facts which can be attacked by falsificationism.³⁰ Kuhn makes this clear when he argues that counterinstances by themselves

"cannot and will not falsify...philosophical theory, for its defenders will do what we have already seen scientists doing when confronted by anomaly. They will devise numerous articulations and *ad hoc* modifications of their theory in order to eliminate any apparent conflict. Many of the relevant modifications and qualifications are, in fact, already in the literature. If, therefore, these epistemological counterinstances are to constitute more than a minor irritant, that will be because they help to permit the emergence of a new and different analysis of science within which they are no longer a source of trouble. Furthermore, if a typical pattern, which we shall later observe in scientific revolutions, is applicable here, these anomalies will then no longer seem to be simply facts. From within a new theory of scientific knowledge, they may instead seem very much like tautologies, statements of situations that could not conceivably have been otherwise" (1970, p. 78).

3. The problem of aerial differentiation

In developing his theory of uneven development, Harvey rejects the *tabula rasa* of human ecology, arguing instead that geological time has presented humanity with "a richly variegated geographical environment which encompasses great diversity in the munificence of nature and in labour productivity" (1982, p. 416). But for Harvey capitalism tears down and reconstitutes the diversity of natural landscape through a mechanistic construction of nature which often mimics strategic cultural forms through the

production of surplus value within a "closed" region.³¹ This process would lead to the sustained equilibrium argued by Daly and Cobb (1989) except for the entropic universalism towards which capital always strives:

"Regional boundaries are invariable fuzzy and subject to perpetual modification because relative distances alter with improvement in transportation and communication. But regional economies are never closed. The temptation for capitalists to engage in interregional trade, to lever profits out of unequal exchange and to place surplus capitals wherever the rate of profit is highest is in the long run irresistible. And workers will surely be tempted to move to wherever the material living standards are highest. Besides, the tendency towards overaccumulation and the threat of devaluation will force capitalists within a region to extend its frontiers or simply to move their capital to greener pastures" (Harvey, 1982, p. 417).

In other words, for Harvey specificity of place and region is materially derived from the capitalist tendency to mechanize nature. In an effort to break down spatial barriers and regional distinctions which hinder the logistics of capital development, capitalism invests time and effort at opportunistic locations (*growth poles*) which briefly achieve economic and spatial equilibrium. This success leads to conditions of accumulation antithetical to further accumulation because the "long-run effect" of competition on a closed von Thunen landscape forces the average rate of profit closer to zero. In effect there are too many big fish in a little pond. At this critical moment, capital self-interest renews the search for profits by *switching* surplus capital and labor between the three circuits of capital. This is accomplished both by the pursuit of locational advantage and the appropriation of rent for production capital. The resulting colonialism

"erodes differences based on variations in the natural environment and on the historical experiences of a group, differences that contribute to the specificity of places. The dialectically related forces of equalization and differentiation work simultaneously to homogenize and to differentiate spaces. Equalization processes such as the development and diffusion of new technologies work to level the differences among places, while the need for competitive advantage stimulates areal specialization and differentiation" (Entrikin, 1991, p. 48).

The pursuit of locational advantage through movement to areas of relatively inexpensive land rents and labor costs reduces the cost of production, increasing competitive advantage and eventually corporate profits (Entrikin, 1991, p. 48). Where the spatial crisis cannot be managed rationally, the anarchy of dynamic disequilibrium which accompanies this process often leads to the "brutal devaluation" of capital and labor. Thus Smith warns that there is no "instant magic" of a spatial fix (1984, p. 133). But the pursuit of locational advantage -- at least as a *regional* strategy -- is often moot because land, and not capital nor labor, is fast becoming the scarcest factor in locational analysis. Thus a technological fix, and not a spatial fix, is more likely to improve productivity and reduce costs as a source of relative surplus value. It is my argument that *capital reswitching* represents a technological fix which forestalls the necessity of spatial relocation crucial to the von Thunen model of economic growth.

What I am attempting to show, once again, is the risk of using partial theory -- in this case von Thunen analysis -- in the formation of metatheory. Such a possibility is problematic to Harvey's theory of accumulation and aerial differentiation because he specifically endorses the neoclassical model to

explain the primitive formulation of capitalist space.³² But von Thunen modelled only the relations of one-commodity production, ignoring a more complete emphasis on distribution and exchange in a multi-commodity economy (Cooke, 1983). In neo-Ricardian economic models derived from Sraffa (1960), a form of technological fix called capital reswitching is used to show that the same technique of production may be the most profitable at two or more separate values of the rate of profit because capital in fact consists of heterogeneous produced commodities (Sheppard and Barnes, 1990).

In neoclassical economics reswitching is impossible because wage and profit rates vary inversely: as the profit rate falls, capital-intensive techniques are more efficient than labor-intensive techniques. But in neo-Ricardian theory, production techniques can no longer be ranked by their relative capital. The resulting implications are summarized by Sheppard and Barnes:

1 - The locational advantage of surplus labor no longer guarantees optimal profits to labor-intensive production methods; the same is true for surplus capital. "Thus free-trade decisions made on the basis of the availability of production factors need not be the most advantageous strategy" (1990, p. 28).

2 - Since there is no necessary correlation between surplus labor and a high rate of profit, market mechanisms will not automatically ensure the equalization of geographical imbalances between rapid-growing capital-intensive regions and slow-growing labor-intensive regions.

3 - The neo-Ricardian reassertion of landlords and land rent adds a third dimension to the wage-profit frontier which means that "it is not necessarily the case the the highest-paying land use for a plot of land is the most productive

way of using that land. This suggests that the use of a land market to allocate land to the highest bidder need not lead to an efficient land-use pattern" (1990, p. 28).

Each of these assertions questions the validity of the von Thunen model used by Harvey in his theory of accumulation and aerial differentiation. Inherent in the neo-Ricardian position is the economic irrationality of probabilistic human behavior which leaves nagging doubts about the validity of Harvey's economic determinism. In other words, Harvey must accept the challenge to consider capital accumulation as a function of technological rather than spatial switching. In fact, Harvey (1989, 1990) has developed such an approach under the heading of *flexible accumulation*. Inherent in the technological are poststructural concepts such as "difference" and "otherness", which imply that culture is more than a contingent episode in historical time.³³ Therefore Harvey must also be prepared to explain the differentiation of postmodern geographies considering other than capital interest as the predominant cause. Quite possibly Harvey is well on his way, having endorsed the need for

"a recognition that the dimensions of space and time matter, and that there are real geographies of social action, real as well as metaphorical territories and spaces of power that become vital as organizing forces in the geopolitics of capitalism, at the same time as they are the sites of innumerable differences and othernesses that have to be understood in their own right and within the overall logic of capital development" (1989, p. 355).

The sociospatial dialectic

Writing at the close of the heated debate between structure and agency

which had consumed nearly a decade of academic endeavor, Thrift (1982) recognized the crystallization of four specific positions:

1 - A revulsion to structuralist thought on the part of "empiricists, who deal only in the given as it gives itself and who continually mistake a minute description of some regularity for theory" and "humanists, who pine for an anthropological philosophy with the category 'man' at its heart" (p. 24);

2 - A marxian interpretation (similar to that of Parsons) that social theory was never meant to be applied at the microscopic level -- that Marx clearly distinguished between a theoretical treatment of individuals as *personifications* (what Harvey described as concrete abstractions) and a treatment of individuals as *individuals*;

3 - The call for a shift from theories about social action to theories of social action (for example "structuration" theory); and

4 - The position of Thrift himself, that it is possible to produce general knowledge about unique events through the interpenetration of structuration with marxist determination.

Structuration, a term originated by Giddens (1984), expresses the mutual dependency, rather than opposition, of human agency and social structure. Social structures are for the most part socially constructed, hence determinative of human activity only in the sense of culturally specific or generally unconscious human activity. In this sense the integration of individual and societal levels by Berger and Luckmann (1966) extends "the concerns of phenomenological sociology to social structures and institutions" (Ritzer, 1988, p. 247), a project which follows Simmel rather than using the positivistic instrumentation of Durkheim and Park. But by treating objective reality as

essentially a subjective phenomena, Berger and Luckmann are in danger of weakening Simmel's dialectic of symbolic interactionism to the point of what Smith (1981) called the "degeneracy of radical eclecticism".

It is my contention that Thrift (1982) seeks to correct the weakness inherent in social constructions of reality by the theoretical reassertion of a realist paradigm which delimits idealistic social structure within the unrelenting materialism of geographic fact. Such thinking introduces my final analysis, which deconstructs the metatheory of sociospatial dialectics.

At this point in our investigation I have analyzed three opposing paradigms -- human ecology, marxian structuralism, and marxian political economy -- as candidate systems of knowledge. I find each of these positions lacking for critical reasons already stated and continue our search for a metatheory of social action in space and time, suspecting -- like Thrift (1982) -- that our best lead is a theoretical interpenetration of *structuration* and *determination*. Along those lines, Gottdiener (1985) and Saunders (1986) call our attention to a theoretical framework developed by Rex and Moore (1967) as an outgrowth of their empirical study of housing and race relations in an inner-city zone of transition. In it, they interrogate the ecological paradigm of invasion and succession using Weber's sociological emphasis on the meaningful action of individuals and lay the foundations for

"an urban sociology which could retain its distinctive concern with the spatial dimension to social relationships while at the same time drawing upon a body of theory located within mainstream sociology in order to analyze such relationships" (Saunders, 1986, p. 114).³⁴

Max Weber's definition of "*meaningful*" action limited his interest in the

subjectivity of the actors two forms of asocial action. In *wertrational* the actor rationally chooses the means but not the end (Ritzer, 1988). In *zweckrational* the actor, by assessing the utility of the goal, choose both the means and the ends (Abercrombie, Hill, and Turner, 1989). Weber had little interest in "meaningless" actions caused by irrationalities of habitualization and emotion. By disallowing humans the freedom of irrationality -- an ethnocentric error problematic to the validity of any intercultural study -- Rex and Moore theoretically reify their subjects as concrete abstraction for the sake of their positivist methodology. Thus we are back to the problem of measurement which proved fatal to the vitalism of the ecological paradigm.

A fuller understanding of individual behavior in economic decision-making, which I will use as the theoretical basis for my discussion of the sociospatial dialectic, is summarized by Logan and Molotch (1987) in their succinctly put admonitions that "*price is sociological*" and "*the markets themselves are the result of cultures*" (p. 9). In the first instance they reject the neo-classical reductionism of *homo economicus*. In the second they deny the assertion that regional specificity is "associated trivially with a unique location and with the false consciousness of place identity" (Entrikin, 1991, p. 49). Logan and Molotch seek to develop a utility theory of *use value* and *exchange value* in the "long tradition of community sociology" (1989, p. 248) ignored by both neo-classical and marxian economists. In doing so they expand Weber's study of rationality to include the irrational, which in turn provides a sociological basis for theories of both rational and adaptive economic behavior (Begg, 1982; Gwarthy and Stroup, 1987). In terms of the capitalist space economy, where economic

situations and outcomes are multi-dimensional, this further accounts for both formal and informal economies discussed by Portes, Castells, and Benton (1989). The result is that Logan and Molotch consider the full range of urban spatiality rather than the "iron cage" of limited free agency implied by Weber's interest and qualitative utility of the urbanization of capital. Use values reflect a wider range of rational and irrational interests understood only in the context of human consciousness. Whereas the commodification of exchange value is defined in units of currency, Logan and Molotch define the use value of residential neighborhoods in terms of daily routine, informal support networks, ethnicity, trust, and identity. This is a recognition that space and spatiality are more than social product and in fact represent a concrete realism which plays a major part in shaping social space. Orthodox marxism, on the other hand, identifies these "sentimentalities"³⁵ with consumption, giving "relatively little attention to space as an analytical problem and treating the owners of real estate as an essentially reactionary residue of a disappearing feudal order" (Logan and Molotch, 1987, p. 10). Yet despite the marxian complaint against the tendency in "bourgeois social science" to assign "characteristics" to places and things rather than sticking with the dynamics of a process as analytical focus (Soja, 1989), the metaphysical characteristics of everyday life are being reasserted through the growing acceptance that space matters.

In the economic landscape perceived by Logan and Molotch, "capitalist places" are essentially a social construct, created by activists who affect structural change in markets, prices, and patterns of consumption. These activists -- who Logan and Molotch call "place entrepreneurs" -- appear similar

to Harvey's personifications of capital. Both undermine the absolute space of capital monopoly by exploiting relational space in the built environment. For Harvey, spatial disequilibrium is the effect of capitalist contradiction. For Logan and Molotch, it is inversely the cause, instigated by entrepreneurs who strategically seek to cash in on declining rates of profit, the capitalistic search for locational advantage, and the consumer's attachment to sentimentality.

Albeit capitalist place is a social product, Logan and Molotch suggest a structuration between human agency and social structure which ensures that the material use of place cannot be separated from the psychological use, in doing so parting company with Harvey's argument that "residential differentiation is produced...by forces emanating from the capitalist production process, and is not to be construed as the product of the autonomously and spontaneously arising preferences of the people" (1989, p. 123). Logan and Molotch point to a growing literature of empirical studies in contemporary settings in which people passionately identify with their community, suggesting a cultural area is endowed with the power of causality in social relationships through the self-constitution of human self. By reflecting a desire to "maintain a connection to Marxian theory and at the same time give greater theoretical weight to human consciousness" (Entrikin, 1991, p. 50) Logan and Molotch are theoretically aligned with Thrift's project to interrogate marxist determinism with a theory of structuration.

One of the immediate outcomes of this interrogation is the understanding that the use value of community, highly sustainable if left unmolested, is constantly threatened by rentiers, ersatz capitalists, and other place

entrepreneurs who profit from the generation of marginal exchange values in the built environment for consumption through speculation and structural intervention. In doing so, they create urban crises through the systematic destruction of social ecologies -- alienating residents from the psychological use value of their communities -- and the replacement of traditional spatiality with the more insipid aspatiality of modern city planning. The crisis is *social* in that it disrupts the phenomenology of everyday life and *ideological* in that it ensures what Lefebvre called the reproduction of the dominant system of social relations. Like all other contradictions of capital, the crisis is fermented by the massive shortage of commodities -- in this case evidenced by the unequal spatiality of the built environment for consumption -- under conditions of extreme overpricing. This transformation is euphemistically called *growth*.

Personifications of capital organize and orchestrate this transformation through interlocking networks which Logan and Molotch -- after Harvey (1989) -- call "growth machines". These networks are largely free from empathetic "concern for what goes on within production processes, for the actual use value of the products made locally, or for spillover consequences in the lives of residents" (1987, p. 18). Social cleavage and contradictory exchange interests between *bona fide* residents and absentee rentiers are reinforced ecologically by spatial distance, as Zunz (1982) found in his study of Detroit ethnic communities. The main thrust of absentee rentiers is to create asymmetrical market relations between buyers and sellers so that "people pay what the landlord demands, not because the housing unit is worth it, but because the property is held to have idiosyncratic location benefits" (Logan and Molotch,

1987, p. 20) such as access to friends, jobs, and schools. It is this manipulative strategy, which delimits the social action of home buyers and apartment hunters, which led Harvey to argue that capitalist exploitation precludes any legitimate expression of cultural process:

"people are constantly searching to express themselves and to realize their potentialities in their day-to-day life-experiences in the workplace, the community, and the home. Much of the micro-variation in the urban fabric testifies to these ever-present impulses. But there is a scale of action at which the individual loses control of the social production process (in the community this means the congeries of interests represented by speculators, developers, financial institutions, big government, and the like). It is at this boundary that individuals come to sense their own helplessness in the face of forces that do not appear amenable, under given institutions, even to collective political mechanisms of control. As we cross this boundary, we move from a situation in which individuals can express their individuality and relate in human terms to each other to one in which individuals have no choice but to conform and in which social relations between people become replaced by market relations between things" (1989, p. 123).

But to maintain his position Harvey must assert realist epistemology cognitively unavailable to most actors who live in the paramount reality of everyday life. How and when do we cross the boundary between molecular and molar scales of reality to sense the helplessness of our alienation? The boundary which Harvey sees as problematic to the individualistic realization of *species-being* is the same line of demarcation which Sir Henry Maine (1905) used to distinguish between the "status" of informal relationships and the "contract" of modern societies. Maine's work was continued by the German sociologist Ferdinand Toennies, who attempted to develop a theory of evolutionary social relations to compliment Marx's work in economics. Marx

had explained the transformation of "natural relationships" into "money relationships" through the processes of commodification and industrialization. Toennies similarly asserted the sociological relationships of *gemeinschaft* and *gesellschaft*, which despite their agreeable translation into "community" and "society" have endeared in most of the English literature in the original German.³⁶

Gemeinschaft represents the relationships found in family, kinship groups, and neighborhoods while *gesellschaft* refers to the formal market relationships of the impersonal city. The key difference, according to Bender (1963), is that in *gemeinschaft* people "remain essentially united in spite of all the separating factors, whereas in *gesellschaft* they are essentially separated in spite of all uniting factors" (p. 65). This tension represents the symbolic interaction of exchange value and use value which cannot be explained solely by the material dialectic of equilibrium and differentiation. Bender argues that Toennies never meant to mutually exclude *gemeinschaft* and *gesellschaft*. But in neo-classical thinking -- notably modernization theory (So, 1990) -- the progressive movement of history is seen as involving the necessity of replacing the spatiality of traditional community with a structural-functionalism somehow inherent in modern society. This creates an ideology that urbanization is a zero-sum game in which growth in *gesellschaft* requires an equal reduction in *gemeinschaft* until society is completely transformed. Seeing this process as inevitable if not totally desirable, modernists endorse quantitative methods in an attempt to direct a value-free approach to development and growth, treating the city as a Von Thunen landscape without due consideration for the

primarily qualitative aspects of use value associated with the idiosyncratic nature of neighborhood space. While not all quantitative models ignore human preference,³⁷ they tend to privilege nomothetic space over idiographic space, serving the theoretical and ideological needs of capital to justify the occupation of *gemeinschaft* (through the false consciousness of place) and the reproduction of *gesellschaft* (through cycles of equilibrium and differentiation). This is accomplished through development plans such as urban renewal which push for overproduction and preoccupy consumers with the expense of speculation and relocation. But the spatialization of capital – made problematic by the high cost of land, construction, environmental clean-up, regulatory control, and litigation – has proven increasingly expensive with the transference of scarce capital resources from the primary circuit "to the urban arena of collective consumption as a major site both for the realization of value and for an increasingly spatialized class struggle" (Soja, 1990, p. 97). As a result, capital looks more and more to coopt rather than confront, seeking to increase aggregate rent and trap related wealth for those in the right position to benefit³⁸, namely

1 - *marginal entrepreneurs* who become rent collectors by inheriting property or serendipitously benefitting from increased land valuation;

2 - *active entrepreneurs* who use urban science to identify potential "money-makers" and engage in land speculation; and

3 - *structural entrepreneurs* who speculate on their ability to change spatial relationships through strategies of intervention (Logan and Molotch, 1987).

In general, place entrepreneurs act to break-up idiographic space

preparatory to a capital-intensive take-over in the name of growth. This is accomplished through the mechanization and homogenization of culturally-specific neighborhoods which Harvey sees as preparatory to future crises of accumulation. But the burdening expense and diminishing return of a spatial fix has forced speculators and investors to marginalize loss by seeking to exploit *gemeinschaft* as a multi-commodity product to be marketed for the realization of a fictitious exchange value based on subjective use value.³⁹ Urban activists aware of this strategy seek to stop exploitation through alliance with the middle class in order to "utilize community organization and community movements as vehicles for radical change" (Katznelson, 1981, p. 193). To coopt such opposition place entrepreneurs themselves form coalitions with the petty bourgeoisie. Logan and Molotch are pessimistic about the probability of popular success because the "extreme independence of local government agencies" permits "both planning and home rule...to benefit affluent communities, and to benefit especially the local elites -- of any community -- who can manipulate municipal policy to their entrepreneurial advantage". Logan and Molotch argue that the "issues that reach public agendas do so precisely because they are matters on which the elites have, in effect, agreed to disagree" (1987, p. 199). This paints a dismal picture of Weberian rationalization in which the quality of *gemeinschaft* is constantly endangered through rent intensification by "organizations and institutions ...whose routine functioning reorganizes urban space" (Logan and Molotch, 1987, p. 51).

Having criticized Rex and Moore (1967) for a positivist approach to what are essentially qualitative phenomena, it is difficult to fault Logan and Molotch

(1987) for their subjectivity in describing the nature of human settlement and market organization. But being at this point more interested in the teleological synthesis of the interplay between opposing metatheories than the correctness of any one position, I argue that the failure of Logan and Molotch to incorporate nomothetic space in their narrative is no less problematic than the failure of Rex and Moore to assert idiographic space in their paradigm of human ecology. Understandably up to this point the reader has found me even more slippery than Castells, but for a decidedly different reason. I have withheld personal assertion in order to ensure a value-free interrogation of metatheory. But in truth I have placed value on that metatheory which structurally unifies subject and object through the self-constituting aspect of human nature. This minimal assertion was necessary to preclude a project of mindless defamiliarization and to specify the reconstruction of the affected parts of deconstructed metatheory at the proper place and time.

Here then is a philosophical dilemma with serious impact on all projects of theoretical interrogation. If we accept the Kantian argument that all we can know of reality is limited by cognition, it becomes clear that our perception of ontological truth is colored by epistemological and methodological thinking derived from parochial allegiance to a particular discipline. This is why I have chosen the metaphors of "idiographic" and "nomothetic" space rather than the ontologically constructs of "idealistic" and "materialistic" space.⁴⁰ I seek to develop a unified approach to Urbanism which transcends the value-free, positivistic research associated with "interdisciplinary" studies. Furthermore I intend to clearly establish the ontological as more than an idealistic construct

notwithstanding the marxist contention that the mind itself is materially determined. Preliminary to my final remarks -- in which I will assert a geography of contextual realism -- I first must conceptualize my definitions of space, place, region, and locale.

Space, place, region, and locale

The literature is replete with morphologies of spatial organization, most of which spill over into subjective meanings of cognitive, proxemic, and psychological space which I have carefully avoided in my presentation. I mention them now -- encouraged by Harvey's recognition of difference and otherness -- to round out my discussion and show the true richness and complexity of ontological and epistemological issues of spatiality.

1. A definition of space

Space I define as both a tangible container of environments and landscapes (absolute space) and an invisible field of human interaction (relative and relational space). There is a problem here as my position is open to the charge of false duality, because *metaphorically* geography appears to be a material construction and history appears to be an idealistic construction.⁴¹ Both materialists and idealists argue that reality is not a gestalt switch and that the nature of ontological truth cannot see-saw back-and-forth between realism and idealism. In reply I will argue two positions. The first -- which I have contended from the outset -- is that the betweenness of place is an epistemological construction. The second is that at a deeper level of reality

timespace in fact is persistently and essentially an ontological construction.

Sayer (1984) uses the term "conceptual leakage" to describe the inappropriate transference of dualistic relationships from one theoretical conceptualization to another. *I argue that the assertion of realists and idealists that nature is ontologically either/or cannot be used as a relevant attack on my position that place is epistemologically both/and.* Relative and relational space are not primary qualities of reality in the sense that shape, mass, and motion – or even absolute space – are primary qualities of reality. (I am here ignoring the quantum argument that these "primary" properties are themselves reducible and that perhaps not even the flavor of a quark or its very existence is essential). Unless it turns out that matter just is space – in which case physical objects are just pieces of space – material reality consists of hunks of matter which themselves define space by their configuration and interconnectivity with other hunks of matter. We may think of space as *absolute*, but through the very act of investigation we negate its tenuous status as a primary quality of reality. If we are *outside* a space (if we are comparing New York and New Orleans) it is *relative*. If we are inside a space – and if we are involved in motion we are necessarily inside *some* space – it is *relational*. Relative and relational space are secondary qualities much like light and color are secondary qualities (Sprigge, 1984). Whereas primary quantities are nonconventional – in that they are not vague but ontologically sure – secondary quantities come into existence by human declaration. As Harvey reminds us, "the problem of proper conceptualization of space is resolved through human practice with respect to it" (1974, p. 13). Color is both a minute

physical property of material surface and the biochemical effect on the brain. Light is both particle and wave. This is *not* to assert a false ontological duality, because both particle and wave are admittedly human conventions. It is the changing *difference* in which we view light which establishes an *epistemological* duality, a phenomenon which has been empirically shown in numerous quantum experiments.

Urban theorists have borrowed from quantum physics the metaphor of timespace without any real commitment to a material ontology to otherwise replace three-dimensional geographic space. As a result we are treated to a vocabulary of competing terms such as "time-space" (Wolch & Dear, 1989), "time-space compression" (Harvey, 1990), and "TimeSpace" (Wallerstein, 1991). The meaning of each of these terms is imprecise, but seems to center on what Soja sees as a "critical reorganization" of history and geography into a paradigm of synchronic structuralism (1989, p. 18). Standard metatheories which consider that objects move through three dimensions of space and one dimension of time resolve the "false duality" of timespace by thinking of it epistemologically. Taking the reorganization of history and geography beyond metaphor requires the replacement of realist ontology with a *four-dimensional* material reality. In such a construction we can no longer talk of space *or* time but only space *and* time. Objects move not through three dimensions of space and one of time but through four dimensions of timespace, albeit human perception of the temporal dimension is unidirectional and discontinuous. To understand this clearly we must think ontologically rather than epistemologically, challenging the philosophical basis of reality itself.

An exciting approach to a new ontology is developed by Heller (1990), who proposes that rather than thinking of three-dimensional objects as enduring through time, we must think of four-dimensional objects which consist of both spatial and temporal parts. In other words, New Orleans did not exist *at* 1718 and 1992 but *from* 1718 to 1992. Its history is as ontologically persistent and essential as its spatiality. All of the human activity that ever occurred in New Orleans consists of temporal parts connected by the glue of causal flows and collective consciousness. In other words, what appears superficial may in fact at a deeper level of reality be causal and what appears to be contingent may in fact at a deeper level be necessary. This is explained by Popper and Eccles, who argue that

"For a long time, essentialism had been identified by all parties, including its positivist opponents, with the view that the task of science (and of philosophy) was to reveal the ultimate hidden reality behind the appearances. It has now turned out that although there are such hidden realities, none of them is ultimate; although some are on a deeper level than others" (1977, pp. 554-555).

I argue with Bohm (1980) the position that *there exist an inexhaustible matrix of relatively autonomous contexts in an implicate order of material reality*. Our existence contributes to causing particles of this underlying reality to emerge from an indivisible whole into the phenomenal reality of our temporal and spatial existence (Wallace, 1989). Euclidean space is a special class of geometric space and geometric space is a special class of human space (Leshan and Margenau, 1982). In other words the see-touch realm of experience in which we live emerges from a materially organized spatiality which itself is created from a larger contextual realm of possible worlds. These

are worlds of human convention, their essentialism governed by complex legislative actions (Heller, 1990). Beyond them lies the precise boundary of nonconventional reality. I am suggesting, with Schlagel, that

"physical reality consists of a series of levels, each composed of distinct layers of entities with unique properties that account, to some extent, for the kinds of structures and interactions one finds on the succeeding higher levels. That they account only partially for the higher domains implies that new features emerge that are not fully explicable....It is as if we were gazing into an enormous sphere, the interior structures of which changed as, aided by various instruments, we penetrated more deeply into its interior. The outer level is the most painterly, consisting of the richest diversity of qualities and forms, as well as the greatest variety of interrelations, while each successive level becomes less intricate and varied, though disclosing new substructures and interactions. This progressive decline in complexity is compensated for by an evident increase in simplicity, unity, and coherence among the elements, contributing to their greater intelligibility. Each of these contexts is somewhat autonomous, although discernible interactions and interconnections between levels provide the basis for deeper or fuller understandings. It is these necessary connections, discovered *a posteriori*, that constitute our scientific knowledge" (1986, p. 294).

In choosing the metaphors idiographic and nomothetic I hope to underscore the self-constituting aspect of human nature while at the same time maintaining a materialist posture concerning the nature of reality. Humans *do* shape history in ways of their own choosing, but only by consciously and unconsciously calling material reality into existence through the continuous process of everyday life.

2. Region and place

For the sake of convenience in empirical study the see-touch realm of geometric space is divided into sub-categories called "regions", more or less identifiable by the prevalence of certain categories of phenomena based on the subjectivity of the observer. DeBlij (1971) identifies "formal" regions on the basis of homogeneous culture and "functional" regions which act as hinterlands centered on loci of human activity. The marxian model of urban political economy takes this duality a step further. Smith argues that in their formative state regions represent the natural differentiation of national space based on the uneven distribution of production capital (such as abundances of natural resources, surplus labor, and locational advantage). In this instance space and society are "fused as a unity" (1984, p. 78). With the development of social economies, and in particular the rise of capitalism, the conceptual fusion of space and society is broken. In the course of crisis and the devaluation of productive capital, Smith sees the development of a "second nature" caused by capitalist strategies of technological and locational switching. These regions of capitalist space are "place-specific", centered on loci of market activity which functionally organize society in support of production capital.

Entrikin (1991) sees the urban realm of *place* as an areal context distinguishable from *region* only in terms of scale. For Harvey, this represents epistemological advantage in that city life becomes a "concrete abstraction" that reflects

"how individuals act and struggle to construct and control their lives at the same time as it assembles

within its frame real powers of domination over them....Social, economic, and political processes have a particular meaning at the urban level of analysis and...such a scale of generalization has real implications for the way in which individuals and other economic agents relate daily actions to global processes" (1989, p. 163).

But "on the street" it becomes increasingly difficult to think of place simply as the abstract valuation and devaluation of productive capital proposed by Harvey and Smith. Rather, *gemeinschaft* persists despite its intended destruction by capitalist place entrepreneurs who seek to appropriate rents and pursue location advantage. As Tuan optimistically observes, "what begins as undifferentiated space becomes place as we get to know it better and endow it with value" (1977, p. 6). The urban story of cultural differentiation and individual biography which daily battle the tendency towards rationalization seems at first glance to privilege idiographic space over nomothetic space, as indicated by Cooke's observation that:

"work done at the urban level is more detailed in its focus, tending to be concerned with individual decision-making to a greater extent than is the case with regional theory, much of which...includes only the vaguest abstraction of humanity in the form of profit-maximizing rational economic man" (1983, p. 132).

But at the same time, we are reminded by Stone (1989) that even the most comprehensive description involves methodological prejudgment. Thus Urbanism, which focuses on a large number of variables in a geographically limited area, involves inquiry into both indigenous narratives and universal laws because place occupies an epistemological "*betweenness*" of idiographic and nomothetic space. /42/ The use of "place" and "region" by Smith, Harvey, Cooke and Tuan -- whether as experiential or abstract -- centers on the act of

human cognition. It constructs an epistemological framework for the convenient arrangement of reality into knowable patterns and processes. Similar thinking is used by Blier to introduce her study of indigenous Batammaliban architecture in Togo and Benin. Blier describes two ways of approaching truth, emphasizing the duality of narrative and metaphorical expression:

"one conveys the reality defined in actual experience; the other extracts from this reality, transferring its meaning to other forms and ideas. Each compliments the other in conveying meaning and symbolic intent" (1987, p. 1-2).

In order to firmly establish Urbanism as nondisciplinary study, it is important to define its focus in terms of an ontological realism which is more than an epistemological end to itself. This reality I call *locale*.

3. Locale

Giddens defined locale as a "place-specific" manifestation of economic, political, and social history created by "the use of space to provide the *settings* of interaction, the settings of interaction in turn being essential to specifying its *contextuality*" (1984, p. 118). In other words, locale is derived from a socio-spatial dialectic which calls forth material reality through ideological action. This is virtually identical to the definition of Dear and Wolch (1989), who see locales as

"a complex synthesis of objects, patterns, and processes derived from the simultaneous interaction of *different levels of social process*, operating at *varying geographical scales and chronological stages* ...as though a multi-tiered sequence of events had been telescoped into a single dimension; many levels and scales of process are simply collapsed on to a single territory" (p. 7).

On the surface, the meaning of *locale* appears no different than the conventional geographic term *location*. But like place, location carries dual epistemological meanings which also make reference to areal scale (Wheeler and Muller, 1981). One meaning is *site*, by which I mean the inherent objective composition of a parcel of land which determines human activity in terms of its carrying capacity. The other is *situation*, by which I mean the contextuality of relative location within a delimited region as experienced from one particular place in that region. But dual epistemology never satisfactorily answers the question "what is real?" because in the process of looking at one abstraction (such as *site*), we fail to comprehend the other (in this case *situation*).⁴³

Through a unified project of idiographic and nomothetic inquiry we can attempt to transcend partial theories of interdisciplinary study and simultaneously observe setting and contextuality. Inevitably we meet failure because of the essential false duality of our project.

What is inappropriate to the measurement of three-dimensional space, however, may be totally appropriate to the measurement of four-dimensional timespace. I contend that urban theorists have gropingly advanced towards an historical geography, unable to resolve the epistemological dilemma of false duality, because they have refused to abandon three-dimensional ontological space. This problem is solved by considering *locale* in the context of timespace. Unlike place, which is an epistemological construction of both/and, *locale* now becomes an ontological construction of both/and. To measure and describe timespace requires that we apprehend the partial theories of interdisciplinary studies in the context of a nondisciplinary framework. This is

what Harvey proposes when he says

"Any attempt to create an interdisciplinary theory with respect to a phenomenon such as urbanism, has perforce to resort to (operational structuralism)....the only method capable of uniting disciplines in such a fashion that they can grapple with issues such as urbanization, economic development and the environment, is that founded in a properly constituted version of dialectical materialism as it operates within a structured totality in the sense that Marx conceived of it" (1973, p. 302).

I am unprepared to declare the ontological supremacy of marxism because the newfound implications of four-dimensional timespace may yet deconstruct historical materialism beyond recognition. Harvey himself ties his realist methodology to philosophy -- as does Levi-Strauss -- but argues that while separation is a matter of convenience "it is amazing how far convenience can lure" (1973, p. 11). I am prepared to assert a four-dimensional ontology which facilitates the operational structuralism of a spatio- historical materialism. This may well turn out to be a marxist construction. But it requires a return to the freshness of phenomenological investigation. Harvey is right to warn that "phenomenological approaches can lead us into idealism or back into naive positivist empiricism just as easily as they can into a socially aware form of materialism" (1973, p. 129). It is my hypothesis that such danger is lessened if we understand that emergent phenomena are not superficialities but temporal parts of deeply hidden necessary structures.

To borrow the imagery of Zen, when we look at one pearl of a necklace, we can see the reflection of all the other pearls strung together. An exhaustive search of partial theories taken out of context will do little to improve our understanding of the urban condition. A concentrated focus on the timespace

phenomenology of one particular locale will explain much about the general case. This is not false induction, because within locale *all* of the objects, patterns, and processes of urbanity are spatially and temporally compressed in the holographic memory of a single phenomenon.⁴⁴

The increasing tendency in metatheory to understand representations of spatial morphology as a mental topography as well as the naive reality of geographic fact is exemplified by Harvey's semiological journey from place to locale in a decade of theoretical writing.⁴⁵ I see this trend -- which attempts to interrogate the metanarrative of structuralism with local stories and postmodern improvisation -- as leading to a realism which addresses areal differentiation in the full context of experiential, perceptual, and imaginary space and not simply as a spatial fetish of market disequilibrium.⁴⁶

The value of self

In arguing the pragmatic necessity of cartesean duality Derrida (1972) points to Levi-Strauss, who goes beyond Durkheim by asserting an *unconscious* collective (Ritzer, 1988). The idea of an unconscious collective allows us to consider in physical space the objective external projections of mental as well as social structure, manifest by the perceptual and imaginary spatiality contemplated by Lefebvre and Strohmeier. For Levi-Strauss, the ultimate structure is the structure of the mind: "the grand objectivication of life into the totality of its physiochemical conditions" (1962, p.327). Levi-Strauss rejects as anthropological myth the cartesean duality of nature and culture, yet incorporates it in his methodology to effect a "self-criticism" of the human

condition. As I have shown, this position stily argues that what has no value as truth may still have value as method. The materially determined human mind is incapable of pure ontological construction and must instead piece things together out of bits and pieces (a process which Levi-Strauss calls *bricolage*). In theory Levi-Strauss rejects spatial configurations as *fetishism*, but in practice he willingly employs them as *material culture*.

But such pragmatism, which argues that results are the true test of validity, leads to an ideological problem because – as I have shown throughout this investigation – our experiential reality is for the most part derived from our epistemological prejudice. For marxian structuralists like Althusser, who is opposed to both idealism and empiricism, there is no true connectivity (such as a knowing subject) between knowledge and object. Althusser recognizes two parallel constructions of reality he calls the *concrete-in-thought* (which is knowledge) and the *concrete-reality* (which is its object). Concrete-reality occupies the experiential world of geographic space while concrete-in-thought occupies the topological space of the human mind. For Althusser, concrete-in-thought is made real by the transformation of ideology into knowledge similar to the way in which raw materials are transformed into chairs and tables. The carpenter has his craft, and the theorist has hers. What we think of as social constructions are in fact spurious correlations caused by the assertion of false ideologies. In other words, human consciousness is a contingent response to material conditions and seems to have power only because we believe it to be true. For structuralism the ultimate goal of the human sciences is the dissolution of self, leading Levi-Strauss to go so far as to

call the knowing subject the *spoilt brat of philosophy* (Sarup, 1989).

Saunders (1986) points out that the lack of connectivity between the theoretical object and the real object in marxian structuralism is the same critical weakness found in the ecological paradigm, e.g. Park's assertion of human ecology as both a theoretical approach to knowledge and an empirically-grounded branch of sociology. At a critical depth, their world remains divided between human values and scientific facts because for them the materially derived structure of cognition can not account for human freedom. In other words they see individuation -- in the tradition of Kant, Simmel, and the "young" Marx -- as a false ideological proposition which treats reality as a social construction of culturally specific activity. But their attack on voluntarism leads to an epistemological problem, because without the human project of empirical investigation there is no way to validate theory as real. Uninformed by epistemic feedback, structuralism is open to the charge that its general theory is ideologically motivated and that its application to the particular is as an act of "epistemological imperialism".

Urban landscapes representative of structuralist paradigms -- such as the capitalist space of von Thunen analysis -- alienate humans from primitive nature⁴⁷ through their lack of a participatory basis for planning and design. Such practice, typically asserted by the closed pedagogy of traditional schools of urban science, has crystallized "the whole field of urban planning...as the organization of participation in something in which it is impossible to participate" (Bonnet, 1989, p. 138).

By asserting the problematic of pedagogy I hope to underline the

significance of metatheory to professional practice and thereby promote interest in my closing remarks. As I have already stated, I seek as metatheory that which structurally unifies subjective self and objective reality through the self-constituting aspect of human nature. In other words, I agree with Lichtman that human nature – the structure of capacities, tendencies, and sensibilities that human beings bring, albeit premature, to their life world at birth – constructs itself both as the subject of its objectivity and the object of its subjectivity:

"Human nature has no independent existence. It is an aspect of a dialectical totality, which is itself constituted by the interrelation between nature, human nature, technique (such as symbolic interaction), the structure of the social world, and the dimension of historical time – the medium through which human practice continually reorganizes the meaning of the whole" (1990, p. 15).

In this sense I hope to continue the early work of Marx's anthropology, in which he asserted that "the highest expression of man's 'species-being' came not in the consciousness of the infinite...but in objective human activity" (Miller, 1982, p. 23). Human activity – pre-conditioned by the independent spatial, temporal, and causal properties of nature – in turn mediates underlying reality by calling forth but never creating the material bits and pieces which emerge in the phenomenal see-touch world as structure:

"Human beings do not alter...structure, but they utilize this structure (as they understand it) to transform its manifest character...employing constructed technique, for purposes determined by the system of social life" (Lichtman, 1990, p. 17).

Erdmann and Stover (1991) point to the empirical work of Roger Sperry, which showed that human values, beliefs, and goals directly affect our brain

states and brain physiology. Such mediation of materialism and idealism is possible not only due to our natural capacity to adapt to reality but our critical human capacity to make choices and to transform that reality, to achieve self-actualization through a transpersonal ecology which Freire (1973) calls *integration*:

"to the extent that man loses his ability to make choices and is subjected to the choices of others, to the extent that his decisions are no longer his own because they result from external prescriptions, he is no longer integrated" (Freire, 1973, p. 4).

Towards a metatheory of urbanism

By privileging metaphor over narrative, the urban question seems deep rooted in an epistemological emphasis on *what is knowable* rather than the ontological *what is*, leading to a mechanistic model of reality "which has served to legitimate the human prediction, control, and manipulation of nature" (Merchant, 1989, p. 199). Granted "no species can survive without gaining some crucial control over that portion of the natural world that is critical to its survival", but we are also cautioned by Lichtman on the limits of such relativism because "however protean the inventions of humanity and however unfettered the creative imagination, these inventions and this imagination cannot void the foundation of the natural order upon which their very practice depends" (1990, p. 15).

Despite the contradiction of significant variations in how and to what degree societies configure space, the bits and pieces of bricolage unearthed through observation represent a material reality that can be called forth and organized but never created by human activity. Carr (1986) points out that

narrative is not just a literary form but a reflexive social process resembling the composing and re-composing of a story. In this sense history is not simply an epistemological approach to knowledge but an essential temporal part of four-dimensional space. I argue against Althusser that concrete-in-thought exists as knowledge inside the human mind to be transformed into concrete-reality through the process of ideology. Rather, I argue with transcendental realists that there exists an implicate order of deep material reality from which we call forth objects, patterns, and processes through ordinary activity in everyday life (Entrikin, 1991).⁴⁸ The pluralistic constructions of space which probabilistically emerge from the implicate order require numerous theories and methods to understand them, not because they are convenient fictions or instruments of bricolage, but because it is improbable

"that the diversity of phenomena on the macroscopic level can be *fully* explained in terms of a finite set of unalterable, eternal elements and interactions discovered at a deeper level of investigation (nor) that the laws and causal principles applicable in any one context of inquiry can be extrapolated *indefinitely* to all other levels of phenomena" (Schlagel, 1986, p. 275).

In his critique of the structuralist position, Sarup points out that "the notion of a stable structure really depends on a subject distinct from it. One can see that a wholesale attack on the subject was in due course bound to subvert the notion of structure as well" (1989, p. 2). In structural linguistics, *subject* is more than simply individuation, it stands for the apprehension of the stable sign.⁴⁹ Postmodernists argue that by deconstructing the subject into consciousness and self, i.e. by asserting concrete-in-thought inside the human mind, Althusser inadvertently shifted philosophical emphasis from ontology to epistemology,

from objective reality to the act of cognition. This is quickly understood in considering this passage on architectural theory by Hillier and Hanson:

"By the assumption that what is to be sought is a relation between the 'social' subject (whether individual or group) and the 'spatial' object acting as distinct entities, space is desocialised at the same time as society is despatialised. This misrepresents the problem at a very deep level, since it makes unavailable the most fundamental fact of space: that through its ordering of space the man-made physical world is already a social behaviour. It constitutes (not merely represents) a form of order in itself: one which is created for social purposes, whether by design or accumulatively, and through which society is both constrained and recognisable." (1984, p. 9).

What Hillier and Hanson refer to as the "fundamental fact of space" paraphrases what Heller (1990) asserts as the essential properties and persistence conditions of four-dimensional timespace. What the idealist claims as socially constructed is in a deeper sense materially determined. But what the realist discounts as contingent may in fact be the empirical manifestation of an even deeper determinancy. This is best explained by chaos theory (Gleick, 1987), which emphasizes that order masquerades as randomness and that nature is constrained by common underlying themes called "strange attractors". For the importance of chaos in developing an appropriate timespace epistemology is twofold. First, a focus on nonorder gives us a way to study how people's actions alter the conditions of their existence:

"social analysis must attend to improvisation, muddling through, and contingent events" because individual thought and feeling are culturally shaped by "one's biography, social situation, and historical context" (Rosaldo, 1989, p. 102-103).

Second, by the intrusion of external circumstances chaos raises our

consciousness level from "I" to "We", compressing timespace into the observable phenomenon I have defined as locale. Carr calls for a deep phenomenology to capture emergent narrative as experienced by the collective action of the we-subject:

"It is true that face-to-face encounters can be fleeting and meaningless. Obviously a great deal will turn on the character of the common object or objects which play so crucial a role in this scheme. Simply sharing the same space, provided the parties are aware of each other in doing so, does constitute a common experience. But an object or event which becomes the focus of attention for several persons can change their attitude towards each other. The pedestrians on a crowded street hardly consider themselves a group. But a traffic accident, which suddenly forces them into a group which the members recognize as such....The pedestrians on the street are transformed from (unknown membership in a group) to (we-relationship called community) by the intrusion of external circumstances" (1986, p. 133).

Borrowing from fractal geometry, we know that the seeming randomness of phenomenon in nature is repeated at whatever scale we chose to investigate.⁵⁰ This means that in studying Urbanism our choice of scale is primarily a choice of convenience. An understanding of human activity in four-dimensional timespace requires we focus our imagination on possible worlds which ontologically offers us a complete understanding of economic, political, and social history compressed as an essential node of timespace. A problem inherent in naive phenomenological study is that it considers social meaning as "something which is added to the surface appearance of an object, rather than something that structures its very form" (Hillier and Hanson, 1984, p. 8). This position denies space ontological power as the giver of shape and form to our material see-touch world. To move towards a metatheory of

Urbanism – which I see as the pedagogical foundation for urban science and urban planning – I propose the reassertion of object through the individualistic case study of locale.

The importance of object is demonstrated in the recognition that form does not follow function, nor does pattern follow process, because the potential subjectivity of function and process are inherent in the forms and patterns which pre-condition their use and activity (McHarg, 1971). To do this I first accept nature as a system of spatial, temporal, and causal properties independent of human activity and attribute to it an ontological status which precedes human existence (Lichtman, 1990, p. 17). This is significant because "social practices are inherently spatial at every scale and all sites of human behavior" which Dear and Wolch (1989) see as determining human activity in three aspects:

- 1 - social relations are constituted through space, such as when opportunities for natural resource exploitation pre-condition production;
- 2 - social relations are constrained by space, such as the "inertia imposed by an obsolete built environment"; and
- 3 - social relations are mediated by space, such as the development of regional culture and patterns of everyday life.

A philosophical turn to contextual realism requires not only a rethinking of the predominant paradigms but an unthinking of the epistemological duality of idiographic and nomothetic space. The term "*unthinking*" is borrowed from Wallerstein (1991), who uses as his starting point the *Annales* movement which began in late nineteenth century France. The movement itself was a reaction

against a closed pedagogy which institutionalized the social sciences in a discrete categorization which precluded interdisciplinary study. By the 1920s, the movement had matured into an attack on

"the division of all knowledge into two mutually exclusive (and mutually denunciatory) epistemologies, the idiographic and the nomothetic. While the idiographic particularists (mostly historians and ethnographers) argued that the world could only be usefully perceived in its complex concreteness, the nomothetic universalizers (mostly economists and sociologists) argued that the world could only be usefully perceived by learning its underlying general laws" (Wallerstein, 1991, p. 220)

The *Annales* movement attempted a reconciliation of metanarrative and local stories by analyzing "large space and long time" using the "double temporality" of persisting social structures and cyclical events (*conjunctures*) within these structures (Wallerstein, 1991). Practically, this interpenetration was accomplished by the analysis of economic and social patterns over time as well as individualistic patterns of everyday life. But no matter how well interdisciplinary studies are orchestrated they still privilege categorization by the very acceptance of the validity of disciplinary thinking (Daly and Cobb, 1989). For Wallerstein -- like Hegel and Marx -- the answer is a nondisciplinary theory of history which incorporates all other theories:

"In any era when even physicists have (re)discovered the centrality of the "arrow of time" to the analysis of physical phenomena...it ill behooves social scientists to neglect this reality" (1991, p. 259).

How would such unthinking affect my proposed metatheory of Urbanism? Wallerstein does not say, but by his indictment of neo-classical economic theories, I suggest he would call for a spatial morphology capable of

evolutionary change in an historical context. The material base is ontologically homogeneous only at the instant of its birth, true for both the Big Bang and the undifferentiated isotropic plane of Von Thunen's urban analysis. No system can produce anything *new* unless it contains some source of randomness (Asby, 1956). By analyzing "large space and long time" we may find that

"It may well be that under the eye of eternity, which sees everything in cosmic and eternal context, *all* event sequences become stochastic. To such an eye...it may be clear that no ultimate preference is necessary for the steering of the solar system. But we live in a limited region of the universe, and each one of us exists in limited time. To us, the divergent is real and is a potential source of either disorder or innovation" (Bateson, 1979, p. 189-190).

Precisely the same critique used to attack the validity of neo-classical abstraction must be used to unthink the key proposition of all positivist paradigms that "any cross section of the universe will reveal a similar ontological grain" (Schlagel, 1986, p. 275). As Frier (1973) reminds us, to think dialectically is to decree the obsolescence of cherished concepts which explain even one's recent past. Once freed from the epistemological imperialism of carteseanism, the true nature of space can be seen as an inexhaustible matrix of settings and contextualities and not the "mimetic abstraction" of positivist reduction (Entrikin, 1991).

The call for holonistic thinking which began this project is echoed by Japanese architect Kishio Kurokawa, who calls for a philosophy of symbiosis which transcends the limitations of dualistic thinking:

"What we see here are two extremes -- an extreme faith in the virtues of technology and, at the same time, an extreme rejection of the value of technology. This dualistic, pendulum phenomenon only confuses and

unsettles our thinking....The time has come for us to transcend dualism and leave these extreme swings of the pendulum behind us. Since human beings are by nature an ambiguous form of existence, incorporating contradictions and oppositions, we have no grounds for disdaining or faulting that which is intermediate, which cannot be divided into opposing dualisms. On the contrary, I am convinced that this intermediary zone will prove to be a fertile field of human creativity as we face the future. (1991, p. 42).

This "intermediary zone" – which Entrikin calls *the betweenness of space* – represents the philosophical base for a metatheory of Urbanism which allows theorists and practitioners to study the urban question employing a full range of theories and methods. In doing so I hope to capture the vitality of idealism as well as the structural logic of realism. I accept the self-consciousness of man, that my mind exists at most as a "mere epiphenomenon of matter". I accept that the real world exists independent of my concepts, although it can be grasped by them. But I reserve for myself and all humans a role in the decision-making process of choosing the reality in which we live, and am none the more insulted if my actions are no more than secondary qualities of matter like light and color. The reality I observe would not exist apart from my presence in it. This sense of participation, in calling forth and organizing matter if not constructing it *ex nihilo* as would the idealists, is called the anthropic principle of cosmology (Harrison, 1981). It asserts, as do I, that the universe is the way it is because we are here.

Endnotes

(1) *Metaphysics* is the study of ultimate reality. By *ontology* we mean that portion of metaphysical inquiry dealing with the division of reality within our own universe; more closely related to the physical world of human experience. *Epistemology* is concerned with theories of knowledge: *what is knowable?*, as opposed to the ontological *what is?* Having established an epistemological basis for inquiry, the last step is to ask the methodological question *how do we come to know?*, and in doing so design an appropriate research agenda.

(2) In response to philosophical propositions of realism and idealism (see footnote 5), Descartes developed the view that the human person is made up of two substances, a mind and a body, and with it a more general claim that "every single thing which exists is either a mental thing, that is, a mind, or a bodily thing. Cartesianism is, therefore, a dualist theory, according to which a radical and exhaustive division of all that there is can be made into these two categories" (Sprigge, 1984, p. 13).

(3) Harvey corrects this error in *The Urban Experience* (1989), an abridgement which reassembles the most relevant chapters of the two previous works in an integrated narrative of the city. It should be pointed out in fairness to Harvey that he considers human consciousness to be a response to material conditions and not necessarily a causal factor in the production of social space. The implication – at least for Harvey – is that *the self-consciousness of man* is determined by the urbanization of capital. In this manner his two-volume work can be seen as representative of dialectical logic and not cartesean duality.

(4) By *idiographic* I am referring to methods which study individualistic narratives of human biography, social situation, and historical context, as opposed to *nomothetic* methods in which the object is to find general laws which subsume individual cases. Thrift (1982) also uses the terms "contextual" and "configurational" to describe the chorology of human agency and the terms "compositional" and "immanent" to describe the geography of structure. Entrikin (1991) uses the terms "idiographic" and "nomothetic" to bracket the neo-Kantian "search for a middle ground between the general and the particular" (p. 94). The neo-Kantian movement – leading to the sociology of Max Weber – attempted to mediate idealism and materialism by denying absolute privilege either to Hegel's *man of self-consciousness* or Marx's *self-consciousness of man*. This is a precarious position which requires the assertion of idiographic space and nomothetic space as epistemological and not ontological concerns. In other words, human inquiry is value-based, leading to knowledge which stems from cognitive interests. To see only idiographic space is to learn more and more about less and less, until at last we

know everything about nothing. Likewise, to see only nomothetic space is to learn less and less about more and more, until at last we know nothing about everything. Neo-Kantians see both epistemological positions as "modes of abstraction through which finite minds seek to create rational order out of an infinite reality" (Entrikin, 1991, p. 97), hence the validity of a scientific representation is a function of the validity of the standard of selection.

(5) *Materialism* and *idealism* are opposing doctrines in philosophy. According to materialism, matter is the ultimate reality, as opposed to idealism, the position that the external material world is either constructed by or dependent upon the mind, making reality contingent on the subjectivity of the observer. For the most part I have avoided the term "realism" because it is used both in a modern epistemological sense and in a classical ontological sense. Where I use the term it is in its modern context, in which objects such as a table or chair have an existence independent of their being perceived. In this sense, realism opposes both ontological idealism and methodological positivism. In its extreme form, called naive realism, the things perceived by the senses are believed to be exactly as they appear to be. Ontologically, "realism" refers to the Platonic doctrine that abstract concepts have objective existence and are more real than concrete objects. In this sense realism is similar to "idealism", and the basis for much confusion in philosophical writings.

(6) The fragmentation of Urban Studies into a collage of postmodern schools and styles with no regard for synergistic inquiry is very much due to the fact that "upon most English-speaking thinkers, who are professed fanatical philosophical imbeciles... philosophy makes no impression" (Marcus, 1975, p. 331).

(7) The semantic confusion over the term "space" becomes clearly if we associate its meaning with the ecological term "*niche*". Niche describes simultaneously the behavioral functions and physical habitat of a particular organism. Space, as used in this paper, is an invisible field of human interaction as well as a tangible container of environments and landscapes. To limit the confusion, I have not asserted the more subjective meanings of cognitive, proxemic, and psychological space, although they are equally as valid.

(8) At the University of New Orleans the specialty programs involve a more interdisciplinary approach: urban history, city and regional planning, or the social sciences.

(9) Leshan and Margenau discuss the concept -- known in psychiatry as *catastrophic anxiety* and in anthropology as *marginalization* -- whereby humans, in their development, build their ego to support, and be supported by, that view of reality their culture believes to be the correct one. If and when

that model crumbles, we experience a weakening of our ability to function (1982). This explains the failure of Levi-Strauss, and in general the failure of all culturally inappropriate methods.

(10) The neo-Kantians accepted the historicism of Herder, which denied the classical notion of an ideal man and an ideal society. Herder instead asserted *verstehen*, the burden of the historian to understand things as they truly were. Historicism included three important concepts: *populism* (the importance of cultural groups); *expressionism* (the expression of human action); and *pluralism* (the personality of individuation).

(11) For example, Durkheim's work on suicide has been criticized for his logic of "explanatory generalization", which inferred variations in an unobservable "suicidogenic current" based on empirical variations in the suicide rate. See Giddens (1971).

(12) Similar to Durkheim's observation of the suicide rate "as if" it was the underlying phenomenon, Park substituted the see-touch world of community for the analytical world of the biotic. "In this way, he tried to fuse a phenomenal form with a realist concept" (Saunders, 1986, p. 64).

(13) Atkinson (1990) argues that the development of a discourse may take place along one of two different lines: metaphor is abstract and relies on similarity; metonymy is narrative and relies on contiguity. Sayer (1984) points out the importance of metaphor as a rhetorical device to "explain the unfamiliar by reference to the familiar" but discounts the mathematical models of logical positivists who claim to use "metaphor" in what are "primarily calculating devices" (p. 60). As Daly and Cobb (1989) remind us, "community is precisely the feature of reality that has been most consistently abstracted from in modern economics. The need is not for one more theorem squeezed out of the premises of methodological individualism by a more powerful mathematical press, but a new premise that restates the critical aspect of reality that has been abstracted from -- namely, community" (p. 43). Woodiwiss (1990) sees even non-mathematical reductionism as problematic to functional-structuralism due to "the respect mistakenly accorded the original Marxist figure of fetishism" (p. 50). While I argue that human ecology trivializes history through reductionist metaphor, I do not argue against the use of metaphor within the context of narrative. For example, Sayer proposes a pedagogical role for metaphor in narrative texts, as opposed to an ideological role which delimits rather than describes realist structures.

(14) Economic man (*homo economicus*) is a metaphor of the methodological individual who obeys perfectly the axioms of neoclassical microeconomic

theory. These axioms (after Lea, Tarpy, and Webley, 1987) state that given arbitrary bundles of commodities ("shopping carts") A, B, and C:

+ *Axiom of completeness*: the consumer prefers A to B, or prefers B to A, or is indifferent between them.

+ *Axiom of greed*: if A contains more of one particular good than B, and at least as much as B of all other goods, A will be preferred to B.

+ *Axiom of transitivity*: If A is preferred to B, and B is preferred to C, then A will be preferred to C.

+ *Axiom of convexity*: If B is a mixture made by mixing x% of A with y% of C, then neither A nor C will be preferred to B.

(15) Leshan and Margenau (1982) show how the molecular world (an atom) follows different laws than the molar world of ordinary-sized objects (a baseball). Likewise, the positivist methodology used to measure social activity operative in personal space is not necessarily valid to measure realist structures which merge into time-space.

(16) Desai (1991) includes an interesting quote in which Marx writes Engels "...you know the tables which give prices, discount rate, etc. etc. in their movement during the year, in ascending and descending zigzags. I have tried several times -- for the analysis of crises -- to calculate these ups and downs as irregular curves and thought...that I could determine the main laws of crises mathematically. Moore, as I say, considers the matter impracticable, and I have decided to give it up for the time being..."

(17) I am aware that "begging the question" is logically a fallacy of *petitio principii* (Barker, 1965). But it is also a rhetorical rephrasing which is merely another statement of the same argument. As such, I contend it is a valid methodological approach, albeit suspiciously postmodern.

(18) Harvey (1989) refers to the "ever slippery Castells" in reference to his repeated flip-flops on such issues as the importance of space and the viability of human agency. We speak here only of Castells as an advocate of marxian structuralism.

(19) I use the terms "marxist" and "marxian" to distinguish Marx's classical position from the larger literature based on his dialectical framework. A third term "neo-marxist" refers more succinctly to attempts to reposition marxism as a critique of late capitalism.

(20) This duality is not accidental, according to Marcus (1975), who points out the contradiction between social reproduction and capital accumulation in terms of Kant's assertion that human agency introduces freedom into the realm of events formerly comprehended by mere analytical understanding. To make his point clear, Marcus describes his own experience in information systems, culminating in his critique of Marvin Minsky as to why computer simulation of human intelligence is impossible. Marcus wrote the 490-page *Dialectical Economics* to provide his students with "a working mastery of Marx's method and major economic- theoretical ideas for graduate students...in such specialized fields as political science, anthropology, and philosophy" (p. v). Perhaps the best one-liner is his frustrating lament that "upon most English-speaking thinkers, who are professed fanatical philosophical imbeciles...philosophy makes no impression" (p. 331).

(21) Katznelson (1981) borrows his concept of hegemony, which is defined as the cultural leadership exercised by the ruling class, from the Italian marxist Antonio Gramsci. Whereas Gramsci speaks of hegemony as opposed to coercion (which is exercised by legislative power or expressed through police intervention), Katznelson substitutes the terms "social control" and "coercive control".

(22) Which is precisely the elitist position of Gramsci, who argued that the proletariat would require gentle prodding from the *intelligensia* to stir them to revolutionary fever.

(23) By the time of the Third International in 1919, Lenin succeeded in imposing an unrelenting materialism – attributable to Engels – on marxist theory which stagnated dialectical thinking. In *Dialectics of Nature* Engels had reformulated historical materialism "as a sub-discipline within a more inclusive science of dialectics, embracing a dialectics of nature as its ultimate justification (at which level) his own reflex theory of consciousness implied a devaluation of subjectivity, and thus a revision of Marx's original thinking, with far-reaching implications" (Miller, 1979, p. 112).

(24) Similar to his assertion that Urbanism is both a form and an epistemological construct, Harvey (1974) argues that space is both absolute and relational. *Absolute space* (after Newton) is a "thing in itself" with an existence independent of matter. Thus it can possess a structure in which we can "pigeon-hole" or to individuate phenomena. Relative space is understood as a relationship between objects. *Relative space* exists only because objects exist and relate to each other. Harvey proposes (after Leibniz) a third type which is *relational space*, in which sense objects exist only insofar as they contain space and ontologically consist of parts which relate to each other.

(25) Quantitative marxism attempts to "avoid the naive functionalism of some Marxists who believe that merely pointing to the beneficial consequences of an action/event serves to explain it" (Sheppard and Barnes, 1990, p. 11) by providing explanations of actual mechanisms of economic behavior through rational choice models and game theories developed by neo-classical economics. But while quantitative marxists start with the rational and utilitarian self-interest of *homo economicus* the actors in the marxist model rationally chose their status as exploiters or exploited, leading not to market equilibrium and social harmony but exploitation and class formation. Quantitative marxists share with neo-Ricardians the rejection of Marx's labor theory of value, which Marx took from Ricardo and subsequently applied to the exchange value of labor as well as Ricardo's limited application to produced commodities.

(26) Because an understanding of these terms is essential to Harvey's thesis, it will prove advantageous to briefly define them – along with the labor theory of value – before continuing this rehearsal:

+ *Labor theory of value*: For Marx, the economy exists to create useful objects with measurable value. Under capitalism, workers do not produce things for their own use but for the exchange of other things, called commodities. The true value of these commodities is based on the value of labor time expended in their production. Marx did realize, however, that the actual exchange value of commodities in the marketplace depended on numerous factors including supply and demand (Abercrombie, Hill, and Turner, 1988).

+ *Surplus value* is the value remaining when the worker's daily subsistence costs have been subtracted from the value that he produces. If in two hours a worker produces goods of a value equal to his daily wage, then for the remaining six hours he will be creating surplus value which is appropriated ("exploited") by the capitalist (Abercrombie, Hill, and Turner, 1988).

+ *The overproduction of commodities*, which appears to the naive observer as a periodic glut of products, is usually reflective of a shortage of products relative to demand, but under conditions of extreme overpricing which limit consumption (Marcus, 1975). Harvey (1982) offers several interpretations of marxist theory because Marx himself did not complete his critique of Say's Law, which in its simplest form stated that incomes paid to laborers must equal the costs of production, hence all commodities produced would be automatically consumed. But Marx did call Say's Law "pitiful claptrap", which would seem to put him in agreement with Marcus' interpretation of overproduction.

+ *Falling rates of profit* result from the need for credit during periods of overproduction to enable capitalist *sellers* to dispose of surplus value to capitalist *buyers* who use the surplus value to expand the scale of production which in turn secures the value of credit crucial to this system. While this in itself

seems healthy, the market price is now free to stabilize at the margin of overpriced or even fictitious speculative values. Marx defines the rate of profit as $S/(C+V)$, or the ratio of surplus value and all constant and variable capital costs. When capitalist production is subject to artificially inflated variable costs (i.e. - overhead costs), the result will be falling rates of profit, unless the surplus value is raised by lowering the labor wage or raising the commodity price. This dogfight of inflation and recession, creating temporal cycles of boom and bust, is problematic to the logic of capital accumulation (Marcus, 1975; Desai, 1991), leading to strategies of technological and locational reswitching in the pursuit of profits.

(27) To the positivist response that marxists, by postulating unobservable realist structures, do not lay their theories open to test, Harvey (1989) quotes Marx's comment that "frequently the only possible answer is a critique of the question and the only possible solution is to negate the question".

(28) There is, of course, the quantum option that Park and Harvey are *both* right: "One of the fascinating things about alternate realities is that at the time you are using one it makes perfect sense to you, and you know it is the only correct way to view reality. It is only common sense" (Leshan and Margenau, 1982, p. 11).

(29) The classic case of instrumentalism is Ptolemy's contrived astronomical system which maintained the appearance that the earth was the center of the solar system by hypothesizing that the planets orbited an epicenter which itself revolved around the earth. This explained the retrograde rotation of the planets in the sky which otherwise threatened a paradigmatic crisis. "The Greek and medieval astronomers who adhered to Ptolemy's instrumentalist view were not at all disturbed by the fact that the same appearances could be saved by two or more quite different hypotheses....they were concerned simply with finding the simplest and the most complete theory for practical purposes" (Wallace, 1989, p. 25).

(30) *Falsificationism* as a doctrine is associated with Karl Popper, who "claims that scientific advance can only come about through the testing and falsifying of hypotheses, which are then replaced by new hypotheses, also subject to test and falsification. One cannot ultimately verify, only falsify" (Abercrombie, Hill and Turner, 1984, p. 94). Sayer (1984) argues against falsificationism on two fronts: it denies natural necessity and allows only a chaotic world of contingent events; it is impossible in such an inductive world to build a theory worth falsifying because experience outruns imagination. For Sayer, some metanarratives are not inherently deductive and are resistant to falsificationism. Bits and pieces of realist theory may give the appearance of being falsified, but the revision of these theories by their authors should not be viewed

"uncharitably as evasion". *At any rate*, falsificationism cannot be used by positivists to attack reflexive thinking anymore than realists need defend metatheory from counterinstances. From either epistemological viewpoint, the issue is moot.

(31) Merchant (1989) asserts that the mechanistic construction of nature is based on a set of ontological, epistemological, methodological, and ethical assumptions about 'reality' which include:

- + nature is made up of discrete, atomic particles;
- + information bits are discrete;
- + the universe is natural, rational, and predictable;
- + problems can be broken down, fixed, and reassembled without changing their character;
- + science is context-free, value-free knowledge of the external world.

(32) Smith (1984) points this out in his observation that by the close of *The Limits to Capital* Harvey himself speaks only of the primary circuit of capital to better accommodate the neoclassical model.

(33) It is unclear if Harvey is referring to Saussure's *difference* or Derrida's *différance*. Difference refers to the structuralist assertion that there is no one-to-one link between *signifier* and *signified*. Derrida uses *différance* to combine the meanings of "to differ" and "to defer". Both of these words, as well as "otherness", evoke postmodern fragmentation, regional differentiation, and non-linear causality: for Harvey a major concession from his earlier position that space was trivial and contingent.

(34) This offers up the possibility of reconciling human ecology and symbolic interaction in a neo-Kantian geography that adequately accounts for both the idiographic and nomothetic qualities of space. Symbolic Interactionism, developed by Talcott Parsons in the 1970s as an alternative to functionalism and involves the study of self-society relationships as a process of symbolic communication between social actors. My reading of Thrift is that he proposes two symbolic interactions: first an implicit dialectic between social actors and social structure and second an explicit dialogue between society and nature. I use the term "dialogue" rather than "dialectic" because the heavy hand of geographic fact – what Wolch and Dear (1989) call the "power of geography" – seems to deeply *determine* social relations and social structures while they in turn merely *inform* nature through social constructions such as territory and

scarcity which do not really alter material reality. I use the term "inform" in its cybernetic sense of providing feedback to a parent system, which I will discuss further in the course of this paper.

(35) *Sentiment* is the inadequately articulated sense that a particular place uniquely fulfills a complex set of material and nonmaterial needs (Logan and Molotch, 1983).

(36) I am amused by the number of texts which refer to *gemeinschaft* and *gesellschaft* as "untranslatable". Having the opportunity to ask Dr. Gerhard Strohmeier of the St. Polten (Austria) Research Center of Educational and Regional Development, on the occasion of his 1990 lecture at the University of New Orleans, to translate the words into English, he replied -- without blinking an eye -- "community and society".

(37) Thrall (1987) has developed a quantitative representation of consumptive need superior to the neo-classical model which only considered the rational growth of production. Thrall establishes as the basis for his model the proposition that "the state of static equilibrium is attained when all households with the same income and taste preferences have the same level of welfare" (p. 12). In other words, Thrall's mathematical model is demand-oriented, not supply-oriented, considering the behavior of consumers in terms of *use value* as well as *exchange value*.

(38) This is essentially the "development of underdevelopment" which Frank (1967) theorized would exist within North American cities between metropolis and satellite, similar to the macrocosmic center-periphery relationships of world systems.

(39) Sheppard and Barnes touch on this phenomenon in their exposition of Sraffa's theory of fixed capital and its relationship to rentier decisions concerning the life-cycle of the built environment of consumption (1990, pp. 137-159).

(40) I make this distinction notwithstanding Sayer's argument that "ideas that observation which is theory-laden must therefore be theory-determined and that theories are observation-neutral can be easily refuted" (1984, p. 68). On the one hand, Sayer argues against the cause-and-effect of theoretical interrogation and epistemic feedback. On the other hand, he points out that "the radical difference between knowledge...and material objects" does not rule out the "possibility of practical adequacy between them" (1984, p. 69).

(41) Harvey -- after himself developing a similar typology of spatiality -- solved his own dilemma by invoking a calculus of higher-order contextualizations:

"The approach (taken in the first part of the book) is that once we have discovered what space is and have discovered ways of representing it, then we can proceed with our analysis of urban phenomena by fitting our understanding of human behaviour into some general conception of space. This approach fades into insignificance in the later essays (of the book) and space becomes whatever we make of it during the process of analysis rather than prior to it. Further, space is neither absolute, relative or relational in itself, but it can become one or all simultaneously depending on the circumstances. The problem of proper conceptualization of space is resolved through human practice with respect to it. In other words, there are no philosophical answers to philosophical questions what arise over the nature of space -- the answers lie in human practice. The question 'what is space?' is therefore replaced by the question 'how is it that different human practices create and make use of distinctive conceptualizations of space?' (1974, p. 13-14).

Yet less than two pages before this strange maneuver Harvey criticizes the "artificial separation of methodology from philosophy" and "facts as separate from values" as "injurious to analysis even in their apparently harmless form of a separation of convenience" (1974, p. 11-12). If we assume Harvey to be a realist, we are led to the puzzling paraphrase that "there are no realist answers to realist questions that arise over the nature of space".

(42) The word predates Entrikin (1991) as the cognitive "middle way" of Buddhism, with an emphasis on both/and rather than the Cartesean either/or.

(43) This is a variation of Heisenberg's Uncertainty Principle in quantum physics: if we know an objects speed, we cannot know for certain its position; if we know its position, we cannot know for certain its speed (Capra, 1984).

(44) See Bohm (1980) and Talbot (1991) for a complete explanation of holographic theory, which includes the concept that each portion of the universe -- no matter what scale -- contains a complete record of the universe past, present, and future. I use the term *holographic memory* metaphorically to illustrate the wealth of information compressed in the timespace of locale.

(45) I summarize Harvey's semiological journey based on the number of pages referenced in the subject index. Whether or not the usage indicates Harvey's reflexive theorization, there seems to be a shift in meaning from space representative of *setting* to space representative of *contextuality*.

	LOCATION	PLACE	LOCALITY
Harvey (1982)	41	0	0
Harvey (1985)	17	25	0
Harvey (1989)	0	43	20

(46) Strohmeier's (1990) construction envisioned mental and substantial geographies representing reality and value. The resulting matrix produced four discrete types of "space images": imprints (mental/reality), images (mental/value), pictures (substantial/reality), and "icon" (substantial/value).

(47) Sack (1980) sees *primitive space* not as underdeveloped space but as the primeval space of pre-capitalism when nature and society were united in functionality and consciousness.

(48) Empirical evidence for a hidden order is offered by Ashihara (1989) in his study of urban design in Tokyo.

(49) The sign in semiotics represents the association of the signifier (usually a physical object, a word, or a picture) and the signified (a mental concept).

(50) Harvey (1974) suggests that an analytic treatment of spatial form might possibly develop out of Euclidean geometry. I suspect that chaos theory and fractal geometry will yet provide a better basis for such analysis.

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