

# Evolution of geographers' perspective of 'urban': methodological approaches and substratum philosophies

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## Abstract

*Urban geography as a major branch of human geography, engaged in the understanding, description, prediction, exploration and explanation of urban space, has emerged as an important contributor to the wider spectrum of urban science and research. Since the emergence of urban geography as a sub-discipline, it has experienced fast changes in response to progress occurring throughout the urban world on one hand and changing paradigm of research and discourse of its parent discipline on the other. This paper aims to throw light on the rapidly changing philosophical approaches in urban geography with corresponding changes in methodologies of urban research. The paper deals with the substratum philosophies that have shaped the research methods in the sub-discipline over the past few decades. The study argues that the methodological suppositions of urban geography incorporates conjunction of past notions and ideas, contemporary approaches and problems that are still required to be worked out.*

**Keywords:** *Paradigm shift, methodology, positivism, feminism, behaviourism, humanism.*

## Introduction

Differential perceptions of phenomena occurring on the earth culminated in a multitude of opinions on how the people-space relationship should be researched. Over the centuries, philosophers have made distinctions about ontology which is a set of specific notions on the nature of being; epistemology which deals with how knowledge is produced or attained, and methodology that refers to a rational set of directives and course of action that can be followed in order to inspect a relation, situation or phenomenon (Kitchin and Tate 2013:6). Method on the other hand means actual processes that are involved in data collection and analysis, whereas methodology

denotes the substratum philosophies on the nature of 'reality' (ontology) and 'knowledge' (epistemology) on which methods are grounded (Hoggart *et al.* 2002:1, 310). As far as the methodological approaches and the underlying philosophies in understanding the spatial dimension of the urban are concerned, the issue that appeared, especially after the 1950s, was the distinction between the rural and the urban. The contrast between rural and urban is inevitable for illustrative purposes; although, often implicit in a disjunction that is both spatial and economic in nature. In both theory and practice, rural and urban areas and their populations are ordinarily defined by the number of residences above or

below a definite threshold limit; agriculture and allied activities are believed to be the dominant economic base of rural inhabitants, whereas people living in urban places are assumed to sustain over industrial activities and/or services. In reality, however, things are more complicated and desultory: how nations define urban and rural can be very different; the boundaries of urban settlements are usually more blurred than portrayed by administrative delimitations (Tacoli, 1998). Nevertheless, in order to problematise the term 'urban', almost all the development theories have conceptualised urban places as non-primary economic hubs, where high concentration of population and infrastructure can be recognised.

Beyond the broad conceptual development of the urban space, on the disciplinary front, urban geography as a systematic sub-branch of human geography emerged in the second half of the twentieth century. Over time it has developed into an established thematic sub-branch of human geography dealing with the study of urban settlements; the form, function, fabric and dynamics of the urban space as a whole. Since the late 1970s urban geography's scope has scaled up promptly (Pacione 2009:24) and the methodological considerations underlying research within the sphere of the discipline have also become diversified. Urban geography, over the course of its history, has been characterised by a progression of profound shifts in the way geographers have gone about researching urban places (Hall 2001:19). Against this backdrop, the present paper summarises the nature of methodological shifts in urban geography in response to changing philosophies that substratum them. Given tumultuous changes that has characterised

the discipline of urban geography concerning philosophical stances and methodological orientations, the paper seeks to find out if there could be some common ground that these apparently differing approaches can offer.

### Changing paradigm

While urban places have enticed scholarly attention for not less than two millennia, expeditious rate of urbanisation in the wake of industrial revolution awakened the academic and research approach towards urban places during the early twentieth century. Issues pertaining to location, site and distribution of urban places attracted scholarly attention in Germany by the end of the nineteenth century by Ratzel, Hettner and Richthofen, and in Britain by Chisholm (Mayer *et al.*, 1953:2). Later on, methods of analysing the internal structure (layout) of cities and the cognition of cities as elements of the landscape were proposed by Schluter in the late 1890s. Subsequently, Hettner focussed on the subject of the economic sustenance of cities, specifically of ports. The first outline of urban geography was furnished by Karl Massert in 1907 and succeeding publications in Germany profoundly undertook endeavours to elucidate the scope and methodology of urban geography and, a considerable number of scholarly works on individual towns appeared in Europe soon after (Mayer *et al.*, 1953:2). However, well-organised academic study of urban space was not initiated by geographers. The urban question was addressed in great depth by the Chicago School of Sociology (Fyfe and Kenny 2005:2). Geographers got interested in the subject matter in the period after the Second World War. Thus, urban geography evolved in the late 1940s as a hybrid of

traditional geography, the Chicago School of urban sociology and urban planning (Taaffe 1990). During the early half of the twentieth century, the primary focus of urban geography centred on general geographical concern in the interaction between human and environment, and in site and situations of individual urban places. While urban ecological models (e.g. concentric zone model) provided a social dimension to urban geography, the economic models (e.g. central place theory) assigned an economic stance to the sub-discipline.

The major paradigm shift in urban geography was evident in the 1950s when methodology of the discipline took a quantitative turn. With a clear positivistic orientation various statistical and mathematical tools and techniques were incorporated within the research methodology of urban geography, focusing on the spatial analysis of urban centres in a cogent, rational and objective way. The main aim of the positivist approach was to explain and formulate universal laws depicting human behaviour in space displaying their fundamental regularities, thus fabricating identical geographical patterns. 'Although evident in the work of Christaller (1933) and Losch (1954) on the spatial patterning of settlements, positivism blossomed in urban geography in the late 1950s with the development of the spatial analysis school' (Pacione 2009:26). The urban geography symposium at Lund, Sweden, in 1960, in cooperation with the International Geographical Congress of that year, brought together a group of urban geographers that would include many of the leaders of the quantitative revolution in urban geography which got unfolded during the following decade (Norborg 1960).

During the late 1960s, urban geographical research took a behavioural turn, explaining how people made sense of their environment. Behavioural thought was centred on understanding the cognitive processes through which an 'outside' world is apprehended by individuals and then translated into actions, which in turn, affect the 'real world' (Robbins 2010:248). This behavioural orientation in urban geography was paralleled by the humanistic approach that emphasised people's subjective experience of urban space. The humanistic notion largely focused on the understanding of the intense, subjective and utterly convoluted associations, prevailing between people, spaces and landscapes (Hall 2001:23). Since the 1980s, urban geography took a cultural turn with the introduction of postmodernism where the major focus was on the social cleavages based on gender, sexuality, race, age, disability etc. This qualitative urban geography was represented as non-empiricist or post-empiricist, sensitive to complexity, contextual, and capable of empowering nonmainstream academic approaches and social groups (Sheppard, 2001).

Presently (from the early twenty-first century) a mixed methodology of qualitative and quantitative approaches is considered to be more appropriate to deal with the complexity associated with the urban as no particular approach was considered fully adequate to address the reality. The diversity in perspectives and the ensuing methodologies that characterised the period following the Second World War is giving rise to the need and search for greater convergence in urban research and recognition of the futility of a quantitative-qualitative dichotomy.

## **Changing approaches**

Since the academic and applied purpose of urban geography is too diverse and the perspectives that have attempted to appreciate it are multifarious and dynamic, the perimeter of the field is too amorphous to compare it with specialised disciplines like botany and geology. ‘The field is partly descriptive—seeking to describe the physical form and social characteristics of cities. It is partly explanatory—concerned with explaining physical and social attributes of cities’, where description and explanation enable urban geographers to predict and infer (LeGates, 2001:16093). Hence, the research methodology of urban geography covers a diverse range of philosophical approaches that substratum these methodologies. Some of which are as follows:

### ***Urban ecological approach***

Researchers from the Chicago School of Human Ecology in the early twentieth century had developed an approach to study the urban phenomena by applying conventional ecological principles like competition, invasion, and succession. Initial deliberations having a geographical impression pirouetted around the ideas of the concentric zones of the urban structure proposed by E.W. Burgess and subsequently by the land economist H. Hoyt's sector model. Subsequent works concentrated on the arrangements of tiles in the mosaic of urban space as the primary objective of investigation, and secondary data, especially census data were utilised to assign values to those tiles. During the early second half of the twentieth-century urban ecological approach was successfully blended with ‘factorial ecology’ and ‘social area analysis’, in an environment of increasing quantification of most disciplines

in the quantitative revolution era demarcating urban residential areas as ‘neighbourhoods’ of similar characteristics. Nevertheless, following a decade of inordinate-gratification, this avenue of research had started producing unsatisfactory results (Bassett and Short 1989:178). The urban ecological approach of the Chicago School drew academic criticisms from subsequent theorists on a variety of grounds. The approach was criticized for the reason that it appropriated a deterministic relation between urban spatial structures and social consequences, assigning urban physical environment the role of a decisive determinant of social behaviour. The approach reduced urban space to a neutrally and objectively configured entity within which the society is poured and set a linear mechanism to explain space-society relationship. Moreover, they contributed to an unadorned account of the then new industrial urbanism as contrasted from the preceding pre-industrial and traditional urban life without inferring the forces which structured them differently. What resulted was an account inspired by the exclusive features of industrial urbanism and its divergence from pre-industrial urban living, one that researches form at the expense of formation (Rugkhan, 2014).

### ***Positivist approach***

The immediate impact of The United States domestic policies addressing emerging urban issues related to poverty and race, urban regeneration and housing, transport and land-use, and environmental health played a crucial role in the development of spatial analysis approach in urban geography during the 1960s (Adams, 2001). The approach led to the growth of urban morphological studies in Europe, particularly by the German school, while the French scholars

Table 1: Approaches in urban geography and corresponding theories

**PHILOSOPHICAL /  
METHODOLOGICAL APPROACHES**

**THEORETICAL  
INSIGHTS**

Urban Ecology	<ul style="list-style-type: none"> <li>• Size, density and population heterogeneity of the urban environment.</li> <li>• Specific socio-psychological adaptive response by the individual urban dwellers.</li> <li>• Socio-spatial morphology of modern cities.</li> </ul>
Positivism	<ul style="list-style-type: none"> <li>• Use of Statistical tools and techniques to explain the spatial pattern of urban phenomena (social, economic and physical) in a cogent, rational and objective way.</li> <li>• Formulation of theory, model or law for generalisation of urban phenomena.</li> </ul>
Behaviouralism	<ul style="list-style-type: none"> <li>• Use of mental maps to establish relationship between environment, image and behaviour.</li> <li>• Application of cognitive mapping techniques to examine a host of issues, including migration, consumer behaviour, residential mobility, residential preferences, perceived neighbourhood areas and images of the city.</li> </ul>
Humanism	<ul style="list-style-type: none"> <li>• Focussing on individuals' subjective experience of urban space and the role of human agencies.</li> <li>• Explanation of the process of interaction between individuals or social groups with their perceived environments.</li> <li>• Emphasising the inequitable use of urban spaces, both public and private, within a city.</li> </ul>
Marxism	<ul style="list-style-type: none"> <li>• Criticising capitalist mode of production.</li> <li>• Focussing on burning urban issues like segregation, environmental racism etc.</li> </ul>
Feminism	<ul style="list-style-type: none"> <li>• Concentrating on space, place and nature and the ways these elements are involved in the organisation of gender divisions in different societies as well as in the case of nature, being gendered itself.</li> <li>• Women's position within and perception of urban space across the globe.</li> <li>• The idiosyncratic nature of the relations and of the social dimensions of gendered identities in the particular urban milieu or places.</li> </ul>

*(Based on Bassett and Short 1989; McDowell 1993; Pacione 2009)*

got increasingly involved with the concept of '*pais*' to analyse urban places (Adams, 2001). With an aim to arrive at more abstract generalisations, urban geographers began to develop quantitative models of urban spatial structure and supplemented them with field data apart from census and other secondary sources of data. Thus, during the 1950s and 1960s urban geography experienced a clear shift from the idiographic to a nomothetic stance with the aid of all the apparatus of modern science, namely quantification, logical construction and the formulation and testing of laws, models and theories (Davis 1972). Arguably, in positivism the explicit concern was technical proficiency aimed at mechanical description and interpretation of urban patterns. Qualitative urban phenomena were often transformed into quantitative problems and human beings were reduced to numerical entities bereft of agency wherein the urban space was reduced to a container of things where society has been poured. The positivist theory of space and spatial relations ignored the most critical dimension of the processes that underlie urban spatial relations and critically limited the effectiveness of relational thinking to understand and interpret urban phenomena.

### ***Behavioural approach***

Urban geographers then evinced more interest in a newly emerging behavioural approach that promised to introduce greater realism to the model building exercise by bringing in concepts from diversified disciplines such as anthropology, environmental psychology, and notions of organisational behaviour. For instance, some urban geographers endeavoured to map urban residential mobility as a consequence of decision-making processes that involved concepts as

place utility, household requirements and demands and environmental condition of the housing; whereas others sought to explore the conflicting images of urban residents in different parts of the city, and portrayed the intricacy of the discerned images of shopping areas which structured apparently simple consumer shopping behaviour (Bassett and Short 1989:180). An elementary contrast was rendered between the 'objective environment and the cognitive image of that environment by an individual or group' that ushered a considerable research interest on underlying cognitive processes instead of aggregate patterns and marked an academic shift towards micro-scale analysis of individuals or group behaviour from macro-scale generalisations (Bassett and Short 1989:179-180). Moreover, urban geographers employed cognitive mapping techniques to examine a host of issues, including migration, consumer behaviour, residential mobility, residential preferences, perceived neighbourhood areas and images of the city. American urban theorist Kevin Lynch in his book 'The Image of the City' (1960) enunciated the process of using the mental maps of the city dwellers for understanding the quality of urban space. He argued that a corresponding set of mental images for any given city prevails in the minds of the people which in turn reflects the quality of urban space of that city.

By the 1970s however, the behavioural approach faced criticisms for assigning inordinate importance to individual behaviour and for its oversimplified constructs of the association between human behaviour and perception forcing the protagonists of the approach to polish the rudimentary behavioural thoughts on aspects like residential mobility and concoction diffusion,

and by establishing better linkages between individual human behaviour and broader societal cleavages.

### ***Humanistic approach***

During the late 1960s, something was brewing in the conceptual domain of social science theory that brought many, if not all, to the accepted paradigms and priorities of the analytical tradition under question (Ley and Samuels 1978:1). Thus, an academic awareness of humanist aims and ideas, in sharp contrast with the approaches of scientific rationalism began to appear. Applied to the field of urban research, perhaps the most important contribution of humanistic approach is associated with its emphasis on the relativity of urban space. In opposition to absolute interpretation that viewed urban space as a container of urban society or a mere physical entity, humanistic orientation theorised the heterogeneity of social and economic relations that exist in urban areas and tried to assign meaning to urban space from the perspectives of urbanites who dwell, use, adapt and modify that space.

In urban geography, the humanistic methodologies are mostly concerned with the interpretation of perceived contexts of individuals or groups in their cultural milieu. The central tenet of this philosophical and methodological approach is built upon the myriad subjective ways through which human beings perceive and experience their immediate surroundings. The major thrust of researches under the umbrella of humanistic thoughts in urban geography is to divulge different layers of connotation in the urban landscape to encapsulate the subjective experience of people, instead of formulating generalised quantitative models or laws of behavioural regularities.

### **Marxist approach**

Marxist urban theory contemplates geographical orientation and representation of the twin urban subjects of capital accumulation and consequent class struggle. Marxian view of the modern cities is that of capitalist cities propelled by capitalist mode of production. Marxists argue that the prevailing contrast between the city and the country is essentially a consequent element of the capitalist division of labour. In each large industrial city of the capitalist world, it was quite common to find migrant workers concentrated in slums of different magnitude. Therefore, in Marxist supposition, the capitalist mode and ideals of production are the major motivation behind the social-spatial organisation of urban places. Within this approach, industrialised cities are dealt with a reference to the migration and concentration of rural people, manufactured commodities and produced services, their distribution, means of production and capital accumulation. Although too diverse in terms of their systematic treatment of the 'urban problem', Marxist (and Neo-Marxist) scholars were sceptical of the Chicago School for their deterministic approaches towards urban space and spatial relations as well as the positivist approach of spatial analysis for its overemphasis on quantitative methodologies and ignorance of normative questions. Since the last quarter of the twentieth century, alongside the works of the dominant Neo-Marxist scholars like Castells and Harvey, a good number of studies applied Marxist concepts to specific urban issues such as housing structure, residential pattern, urban real-estate development and many more (Bassett and Short 1989, p.180). Arguably, the most fundamental contribution of Marxist

notion to the critical analysis of urban places lies in its ability to scrutinise urban living and work patterns, spatio-functional organisation, and everyday life of urbanites through the postulations of political economy, which enables unveiling the underlying patterns and ordering principles of capital accumulation and speculation, as well as the processes through which capitalist social relation and economic interests are deeply rooted in the frame of urban society (Pratschke, 2010:489). However, subsequently, the Marxist urban philosophy and its politico-economic methodology were criticised on the premise that by overemphasising the role of capital in the production of urban space, the politico-economic approach imperils deprecating or neglecting the exclusive *local forms* of the urban scenario. Marxist narrative portrays *capital* as the predominant determinant of urban change undermining the role of *the local* and *the people* wherein the urbanites are seldom represented as anything other than nostalgic romantics or cultural dupes (Rugkhan, 2014).

### ***Feminist approach***

In the 1980s, an academic movement offered new critiques aimed at an urban theory that had allotted negligible attention to gender issues and the position of women within urban space. Feminist geographers professed that inadequate attention was paid to women's acquaintance with the relationship between urban design and gender roles and that it was solely drawing attention to such spatial restraints that new concerns for urban development could be furnished (Little 2007). However, there were some debates on the efficiency of the feminist approach to necessarily alter the existing methodological pathways that were

glorifying qualitative research practices in social sciences. Nonetheless, in pursuit of this argument, the feminist approach had given rise to a number of very insightful volumes on the action and exercise of feminist research (Jacobs, 1993). Arguments placed during the early developments of feminist philosophy and methodology precisely focused on the methodological unconformity between quantitative methods that were essentially masculinist and feminist qualitative approaches. Stanley and Wise (1983) contended that ethnographic and phenomenological research perspectives offered effective tools for feminist research that desired to curtail the ravine between researchers and researched. Eventually feminist geographers have approached three prime notions of geography – ‘space, place and nature’ - and how these are embedded in the social fabric of gender discords in various societies as well as assuming nature being gendered itself (McDowell 1993). Thus feminist approach challenged modernist tradition largely under the influence of patriarchy. Four distinct areas of gendered social practices have emerged as the prime sites of interest of feminist urban geography: the domestic sphere or home; the workplace environment; urban built environment; and various localities (Fincher 1990). By bringing women explicitly into the study of urban geographies, researchers questioned how cities’ spatial organisation affected women’s lives and how urban development itself reached and reinforced society’s assumption about women (Fyfe and Kenny 2005:4).

### ***Influence of remote sensing and GIS***

Industrial advances, economic opportunity, and cultural attractions contributed to ebbs and flows of urbanisation in the twentieth century,



but the twenty-first century's technological achievements provided unprecedented connectivity across geographical and digital spaces that have fundamentally altered human interactions with one another and the environment (Murray 2018). Since the 1990's, remote sensing and GIS have served as a major decision-making tool in urban research. It is generally recognised that remote sensing and GIS technology have visibly assisted the management, repossession, analysis, modelling, and presentation of spatially referenced data in both academic and applied urban geography. GIS acts as an efficient tool not only for the spatial structure analysis of urban systems, which includes potential distribution of cities, extraction of principal linkages among cities, and delimitation of subsystems; but also, for the verification of socio-economic attributes and dynamics of urban system (Du 2000). This has led to the emergence of a new research paradigm in urban geography, which in the words of Koutsopoulos (2011:2) can be recognised as 'Choroinformatics' that is "...composed of two components: Choros+Informatics. The component 'choros' (space) refers to the integrated dimension of geographic space, when considering the use of information technology ["informatics"]" Moreover, this new research orientation consists of a comprehensive frame of analysis by presenting a realm of information system inside which essentially all of the urban geography can be accomplished. This holistic approach of 'Choroinformatics', by accentuating an integrating approach to urban space, is broader than simple data or informatics; it is open rather than enclosed; it can support pluralistic research approaches, thus offering no limitations on the subject matter of urban geography (Koutsopoulos, 2011).

### **In pursuit of a holistic premise**

The richness of urban geography as a branch of geography is grounded explicitly on the fact that it can simultaneously appraise forms (materiality), formations (society), and their dialectical relations as being weaved into the occurrence of history. The vision of totalising the knowledge of urban geography dominated the arguments placed so far concerning the very idea of 'core' of urban geography. This must be a point of departure for the sub-discipline that in turn will enable urban geographers to understand objects and actions as inseparable or dialectic of one another. This is because the term 'urban space' stands for a complex whole, consisting of a web of physical and social processes, which in turn encourages a researcher to scrutinise the relations between space and societal formation in a holistic way. However, this is not aimed at foisting a single disciplinary definition of urban geography. An exhaustive urban geography could transparently be pivoted on one among multiple philosophical strata, according to the theoretical stance of the researcher. Nevertheless, it is imperative to adopt a rational set of postulations where all the components in action and their dynamic interaction will be contemplated in totality. Accordingly, urban geographers can answer the critical question that why and how the correspondence between urban society as the actor and urban space as the acted upon as well as urban society as the medium of action and urban space as the actor, can be approached.

Each of the prime philosophical standpoints (Table-1) is eminently suited to elucidate some specific dimensions of the complex urban forms and formations though admittedly no one of them singly or

independently can do justice to a holistic understanding of the urban in its assemblage of people and space. Urban researchers in general have taken two pathways: one largely relying on one of the philosophical stances due to their assumed 'supremacy' over the others; and the other by amalgamating more than one approach with a rationale that there is no single way to comprehend the reality. The second alternative is perhaps more welcome as far as urban research is concerned as it can fully appreciate people-space relationship in the dynamic urban world. It is imperative to appraise both the generalisation of structural processes concerning urban phenomena as well as an empirically grounded inference on the typicality of social and physical realities that manifest from the reciprocity of structural forces with local elements. To this end, it is argued that the urban geographers need to be as pluralist as possible while dealing with complex urban phenomena.

The rising number of contemporary empirical evidences take into account several kinds of *paradigmatic cities* like postcolonial city, post-industrial city, subaltern urbanism, fragmented urbanism, Railopolis and many other emerging genus of urban living that is increasingly divulging a widening gap between urban studies scholarship and the prevailing body of urban theories (Rugkhanan, 2014, Banerjee, 2022). Thus, pluralising urban geographical research may help recognise different philosophical narratives on equitable terms, thus, inferring a more holistic understanding of urban space, society and their complex interaction pattern.

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