

Chapter 3

The Second Culture of Cities

3.1 Introduction

In the early 1970s we see a rather unusual development in the domain of urban studies: Some of the leading urbanists of the quantitative-positivistic “conviction” that dominated the discipline in the 1950s and 1960s started to question the scientific and social validity of their own project. The most prominent among them was David Harvey (1973) with his *Social Justice and the City* – a book that produced the most influential critique to date of positivist urban studies, that is to say, of the first culture of cities. Harvey’s attack came from a Marxist-Structuralist standpoint. Others attacked positivistic geography and urbanism from phenomenological and idealistic positions that later came under the title of *humanistic geography*. Together these two lines of criticism formed what I’ll refer to below as SMH (Structuralist-Marxist and Humanistic) urban studies. Sect. 3.2 surveys the field of SMH urban studies.

SMH urban studies dominated the field for about a decade and a half until the emergence in the mid-1980 of postmodernism as a leading approach in the humanities, social sciences, urban studies and most importantly, as a dominant style in architecture and urban design. As the name indicates, postmodernism is not a negation of modernism, but rather a twist of style and emphasis; the same applies to its two extensions – deconstruction and poststructuralism: In fact many postmodernists, deconstructivists and poststructuralists were ex-SMHians who, while becoming less committed to the grand SMH ideologies, still kept strong sentiments to the old ideas.

From the start postmodernism, poststructuralism and deconstructivism – to which I’ll refer to below as PPD – had special relations with urbanism, cities, and architecture. Architecture was employed, on the one hand, as a metaphor to convey PPD ideas, while on the other, PPD architecture demonstrated how abstract ideas could take form in concrete, iron and glass and forms of buildings. As for cities and urbanism, they became the arena in which the *postmodern condition* showed itself, namely, globalization, the decline of the welfare state, the rise of global/world cities, glocalization, and multiculturalism. Sect. 3.3 on ‘PPD cities’ elaborates on these issues.

While the major tension in the domain of cities and urbanism has been the tension between the two cultures of cities as described above, there were other approaches that formed what I describe below as ‘the third way’ to cities and urbanism. Projects such as Jane Jacobs’, Christopher Alexander’s, and also Torsten Hägerstrand’s have suggested a third way that in retrospect can be regarded as forerunners of CTC. Their ideas are discussed in Sect. 3.4.

3.2 SMH (Structuralist-Marxist and Humanistic) Cities

The SMH (Structuralist-Marxist and Humanistic) attack entailed a split that divided urban studies into two parallel streams: On the one hand, we see Positivistic urban approaches that continued the first culture of cities and its attempt to develop a science of cities. The latter included the so-called *quantitative geography*, *regional analysis* with its orientation toward economic theory and system approaches, and *behavioral geography* that since the 1970s has developed more as a branch of cognitive science than of human geography and urban studies. On the other side of the barricade, we see SMH urban studies that have formed part of what we term here *the second culture of cities* that is strongly inspired by social theory and philosophy.

The abbreviation SMH does not indicate an identity between Marxism, structuralism, phenomenology and idealism. The differences between these approaches are significant and in some cases (see below) approximate the differences between each of them and positivism. The notion SMH indicates, first, the wider geo-historical context: the days of early 1970s were the aftermath of Vietnam and students’ upheavals of the 1960s in Europe and the USA. Secondly, in the specific history of urban studies the SMH approaches emerged more or less at the same time, united by their common positivistic “enemy”; by their self-image as the discipline’s intellectual, anti-capitalistic avant-garde; by social theory as their source of inspiration. In particular they became influenced by the Frankfurt School interpretation of social theory and philosophy with its emphasis on qualitative analysis and hermeneutics, and rejection of logical positivism and its quantitative analysis.

These uniting elements have obscured the differences between structuralism, Marxism and the humanistic approaches and more importantly, the similarities and potential links between them and various positivistic stands. For example, mathematical methods can be, and have been, employed in order to criticize “neoclassical economic geography and to develop a Marxian political economic alternative”, and “progressive human geography can take advantage of quantitative practices” (Sheppard 2001, pp 535–6). Furthermore, as we shall see below, systems theory had and has strong links to structuralism and Marxism, while the positivistic cognitive geography shares many common areas of interest with humanistic and postmodern urban studies. Given the differences between the various components of SMH, it is not surprising that their images of the city differed from each other. Some of these images are described below.

3.2.1 *The City of Social Justice*

David Harvey's (1973) *Social Justice and the City* pushed aside to the periphery the quantitative tools of the first science of cities and suddenly the surfaces of cities became transparent and through them one could clearly observe the deep structure of society, the ruling and the ruled classes and their relations of production as well as social relations of production. Suddenly one started to see the hidden structure of the Capitalist engine which is the real power responsible to all that takes place on the surface: the high-rises, the suburbs, the movement of people, the rich and the poor, their wants, dreams, hates and loves . . . all these, be they big and magnificent or small and ugly became secondary, peripheral, at best trivial surface representations, or a momentary configuration in a huge chess game played by the historical social forces and their relations of production.

Your efforts to tame the city, said Harvey, are Siziphean efforts; your scientific models are "incapable of saying anything of depth and profundity.." (Harvey 1973, p 129); not because you are bad guys or second-rate professionals, but because, like Don Quixote, you tilt at windmills, and by so doing not only that you do not harm the real beast – the Capitalist mode of production – but you actually participate in its reproduction; not only that your sophisticated plans do not reduce injustice in the city, but they reproduce it; create it anew again and again. Capitalism with its city of injustice is advancing and flourishing behind the ideological false consciousness of your liberal science and planning.

Had there been a subtitle to Harvey's book it might have read 'the transformation of a social urban geographer from a liberal positivist into a structuralist-Marxist Social Theorist'. David Harvey's personal story is, in a sense, the story of a whole generation. As a participant in the "quantitative revolution" of geography and urbanism of the 1950s he gradually became one of the authorities in positivist-quantitative geography. His book *Explanation in Geography*, published in 1969, is since one of the best, and most comprehensive, geographical synthesis of positivist theory, methodology and philosophy.

Harvey started to doubt his own "Explanation" already when it was in press (Harvey 1970), and his "Social Justice" is, an all-out Marxist-structuralist attack on his Liberal-capitalistic "Explanation". "Social Justice" has triggered a bombardment of anti-positivism, anti-quantification criticisms, mostly by the ex-leaders of the quantitative-first science of cities. Bunge the ex-theory and model builder, Gould the ex-behaviorist, King the ex-statistician, Smith the ex-neoclassical location theorist, to name but few of the prominent figures; one by one they stand up, criticize their positivist-quantitative past and promise a new, socially relevant, urban geography (AAAG 1979).

If the early 1970s have been the years of criticism, the late 70s were the years of re-formulations. The Journal *Antipode* became the major (though not the only) outlet for radical-Marxist geographers and urban planners in the U.S., while *International Journal for Urban and Regional Research* in Europe. Relph's humanistic-Heideggerian *Place and Placelessness* appeared in 1976, and a year later Yi-Fu

Tuan's (1977) phenomenological monograph on experiential *Place and Space*. In 1977, Peet's Marxist *Radical Geography* was published. Ley and Samuels (1978) have edited *Humanistic Geography* and texts of forgotten geographers, such as the anarchists Elisee Reclus (Dunbar 1981) and Prince Kropotkin (Breitbart 1981), reappeared on the stage as a starting point for a renewed, socially relevant geography and urbanism. In 1980, Kirk published *Urban Planning in a Capitalist Society*, while in 1981 Dear and Scott edited *Urbanization and Urban Planning in Capitalist Society* – a collection of essays attempting “to define a general theory of urbanization and planning . . . a theory that generally insists upon the explicit derivation of contemporary urbanization processes out of the structure of the capitalist mode of production” (p XIII). In 1982, once again came David Harvey, now with *The Limits of Capital* in which he attempts to go beyond Marx's *Capital* in order to fill some “empty boxes” in the Marxist theory, especially those related to ‘the urban process under capitalism’; a project which was completed three years later with the simultaneous appearance of his two new volumes *The Urbanization of Capital* (Harvey 1985a) and *Consciousness and the Urban Experience* (Harvey 1985b).

The above partial and by no means exhaustive list will suffice to transmit the spirit of the period – the fact that the “quotations” in the writings of Harvey, Peet, or Kirk come from Marx, Engels, Lefebvre, Thompson, Althusser, Levi-Strauss, or Habermas, while those of Tuan, Relph, and Battimer, from Schutz, Husserl, Sartre, Buber, Gadamer, and Heidegger. In short, SMH urbanists were inspired by ‘social theory’ or ‘social philosophy’ – that body of literature which takes the entity ‘society’ as its focal subject matter.

This is significant since social theory oriented urban studies were not a side-stream of social geographers and urbanists interested in the philosophy of science, but became the central current of the discipline affecting many planning schemes, almost every research, theoretical as well as empirical. This, I think, has no parallel in any other discipline not even in sociology whose source of origin was social theory itself. Twentieth century sociology, as noted by Frisby and Sayer (1986), has disentangled itself from social theory and from grandiose questions such as ‘what is society’ or ‘how society is possible’, or, what are the relations between the individual agent and the social structure. Contradictory as it may sound, urbanism, social geography and urban planning have done exactly this and became “applied social theory”. Social theory has become a theoretical framework for studies on interregional migration, location of industries, regional or urban inequalities . . . urban studies, geography and planning have taken social theory from the high spheres of philosophy ‘down to earth’, literally.

3.2.2 *The Marxist City*

Marx, as is well known, had very little to say about space and cities and yet the theory of cities and urbanism is intimately linked with his writing. This is so with respect to the discourse of ancient cities and urbanism which is strongly

influenced by the Marxist interpretations of Childe's (1950) "urban revolution" and of Wittfogel's (1957) "oriental despotism" and "hydraulic civilization"; and this is so with respect to discourse of urbanism in modern capitalist society in which central figures are people like Lefebvre (1970) with his (once again) "urban revolution", Harvey (1985b) with *The Urbanization of Capital* and Castell (1977) with his *The Urban Question*.

The Marxist (image of the) city is a city of big forces, of modes and relations of production, of class struggle between the oppressing and the oppressed, of the capitalists versus the working class, of the economic infrastructure and the political-ideological superstructure, all obeying the laws of history as revealed by Marx and elaborated by Marxism. Two such images, one of Castell's and the other of Harvey's, will suffice to give you the spirit of this new Marxist city.

Castells (1977) constructs his Marxist city by translating Althusser's nonspatial structuralist-Marxist conception of social structure to a spatial urban structure. Here the city is the spatial expression, or representation, of the structure of society as Marx and Marxism have revealed and elaborated. This translation is shown in Fig. 3.1.

In *The Urbanization of Capital* Harvey (1985a) portrayed another image of a Marxist city. It is constructed by showing how the very laws of capitalism as formulated by Marx(ism) entail, as a logical consequence, the specific capitalist urban landscape as we know it today. Capitalism as the dominant mode of production of our age is characterized by structurally inherent inner tensions and contradictions and is thus chronically unstable. As a consequence, the landscape of capitalism is full of tensions. One very basic tension is between forces working toward spatial agglomeration and processes working toward dispersal over space (Fig. 3.2). The agglomeration processes pull clusters of economic activities into specific locations and regions, thus forming cities, and at the same time the inherently expansionary tendency of capitalism which demand that capital accumulation be also dependent upon time-space coordination between regions pushes toward spatial dispersion of economic activities. According to Harvey, this tension can be resolved only through 'the urbanization of capital' (Gregory 1994).

3.2.3 *The Humanistic City: From Space to Place and Back Again*

The criticism of the first culture of cities developed as noted in two heads: one was structuralist-Marxist and the other phenomenological and idealistic. A central tenet in this second line of criticism was the tension between *place* and *space*. The notion of *place*, according to writers such as Tuan (1977) in *Place and Space*, and Relph (1976) in *Place and Placelessness*, refers to the intimate humane relations between people and their very homes, neighborhoods, cities, lands, countries; the positivistic *space*, they claimed, is an alienated, alienating and dehumanizing abstract concept – a *placelessness*. The notion of space as conceptualized by positivist approaches and theories, claimed both structuralist and humanistic geographers and urbanists,

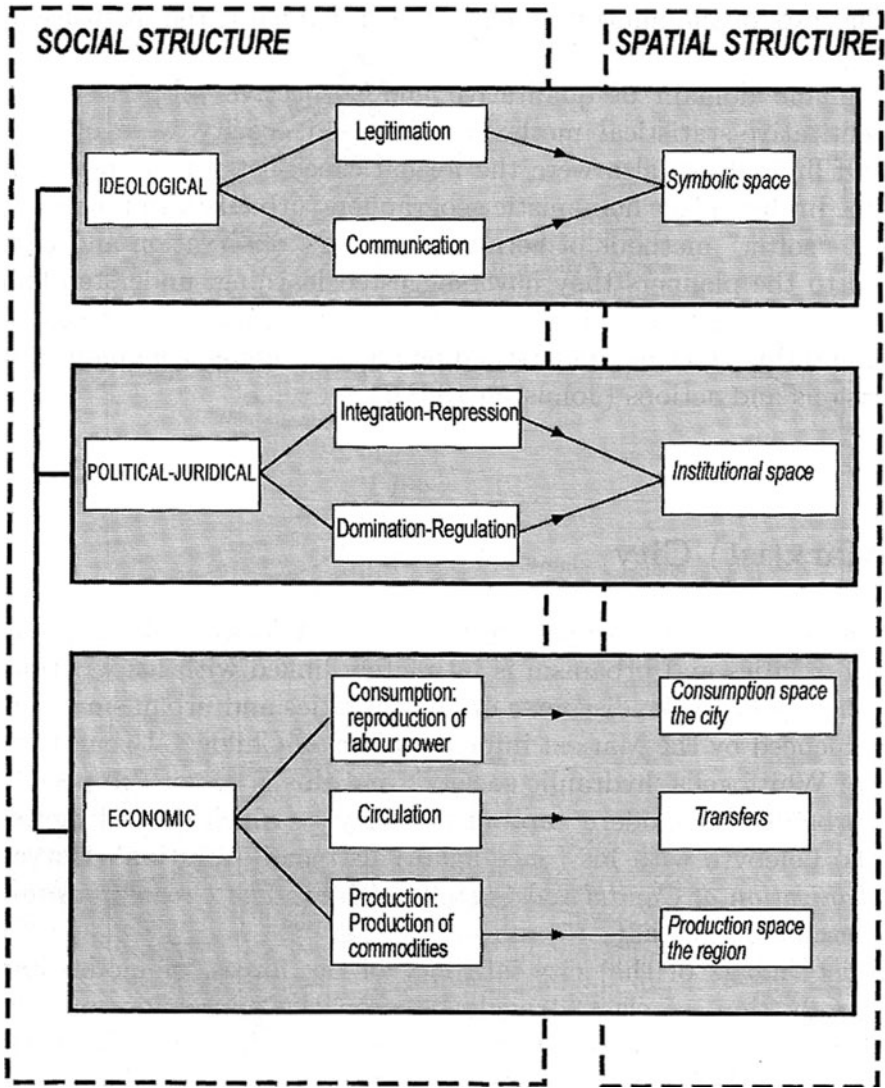


Fig. 3.1 The Marxist city as a spatial representation of social structure (Source: Gregory 1994)

is part of the ideological false consciousness that tends to obscure people’s view at their real conditions of existence.

The humanistic image of a city that emerges out of this discourse is a city of places and spaces; a city as human individuals, subjectively and inter-subjectively, perceive, remember, cognize and imagine, it to be: the visual shape of the city with its neighborhoods, streets and parks, as well as its nonvisual properties of good/bad streets, prestigious buildings, safe, dangerous, pleasant, friendly, alienated, neighborhoods, and the like.

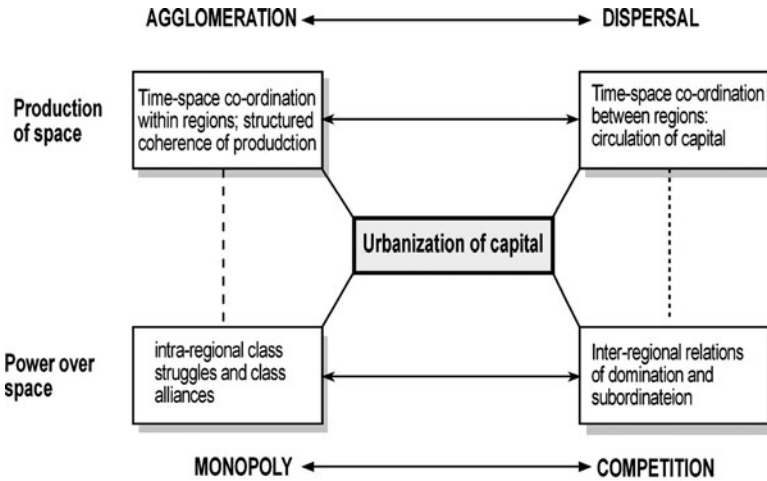


Fig. 3.2 The Marxist city as an outcome of basic tensions in the landscape of capitalism (Source: Gregory, *ibid*)

This is a city that is constantly shaping individuals’ daily activities and routines, which in their turn construct the city, and individuals’ cognitive maps of the city, and so on in an ongoing process of reproduction and structuration. The heroes of this ongoing play of urban dynamics, are human individuals with their subjective near and far, big and small, pleasant and ugly – elements and properties which have no role to play in the first culture of cities, but are the main actors of the humanistic city.

By looking at the city from within, from an *insider’s view*, from the perspective of people, of the individual, the humanistic city attempts to capture the added existential, phenomenological, experiential, quality of the city; the *real* city as experienced by the people who actually create and construct the city. They try to capture not only the sense of *place* – those portions of the city which were created by people and thus directly transmit individuality, human scale and “peopleness”; but also the sense of *placelessness* – those impersonal and alienated parts of the city created not by the personal wishes and activities of people, but by the impersonal interests of the multi-national, the big company, the institution, the system.

In this humane domain of qualitative and subjective properties, the positivist-quantitative-statistical methods of the first culture of cities were of very limited use. In their place humanistic urbanists and planners had to turn to “softer” methods of hermeneutics, free observation and conversation; and to the planners they have suggested learning, understanding and awareness: learn, understand and be aware of, the place and placelessness of cities, and this knowing, understanding, and awareness will guide your planning decisions and actions (Johnston 1988).

The above dichotomy between place and space marks the usage of these terms in the discussions of the 1970s. Subsequent structuralist-Marxist and humanistic (SMH) urbanists as well as postmodernist, poststructuralists and deconstructivists (PPD – see below) have further elaborated both notions (Hubbard et al. 2002,

pp 16–18) and have exposed their multidimensionality: instead of the place-space dichotomy of the 1970s, they now portray the two notions in terms of a continuum at one edge of which stands the humanistic *place* of the 1970, while at the other, a socially produced *space* as conceptualized, for example, by Lefebvre (1974/1995) in his *The Social Production of Space*. In between one finds a multiplicity of places and spaces that form the continuum. The gap now is between this place-space continuum and space as employed by positivist urbanists.

3.3 PPD Cities (Postmodern, Poststructuralist, and Deconstruction)

It is common to see the origin of postmodernism, poststructuralism and deconstruction in the writing of personalities such as Foucault, Derrida, Lyotard and Jameson, among others and in precursors such as Nietzsche, Heidegger, Lacan, and Wittgenstein (Dear 2000, p 31). What is common to PPD writers is that they have turned their back on, and questioned, various positions that, following the appearance of ‘postmodernism’, are regarded as characteristics of ‘modernism’. Among other things, they have exposed and criticized modernism’s obsession with history, time and progress and have questioned the belief in an Archimedean point from which one can derive moral as well as scientific truth. In his *Time’s Arrow & Archimedes’ Point* Price (1996) writes that the attempt to find an Archimedean perspective on reality was one of the greatest efforts of modern science and philosophy. The belief in the possibility to define such a point was common not only to physicists and philosophers (to whom Price refers), but also to ‘modernist’ social theorists, be they Marxists, structuralists, humanists or liberals.

The rejection of any fixed point of departure shows up in the reluctance of PPD writers to say what postmodernism *is* and to concentrate instead on what it *is not*: “I’ll use the term **modern** to designate any science that legitimates itself with reference to a metadiscourse . . .”, writes Lyotard (1984, xxiii) and then adds that postmodernism is the “incredulity towards metanarratives” (xxiv). “. . . it is hard to know what postmodernism is”, writes Dear (2000, p 25) in his *The Postmodern Urban Condition*, and Cilliers (1998, p 113) argues: “The word ‘postmodern’ has acquired so many different meanings that it has become impossible to define it”. The term postmodernity, says Luhmann (2000, p 40), “cannot say what it means, because this will lead to . . . its deconstruction”.

The doubts concerning the Archimedean point are directly related to the criticism of history and progress: if there is no Archimedean point, there is no clear end and neither truth nor possible notions of progress and direction toward them. In such a world and reality one is thus left with coexisting entities (cultures, aims, ideals, truths, . . .) with no hierarchy among them, that is to say, with a multiplicity of spaces and places. “The great obsession of the nineteenth century”, wrote Foucault (1986, p 22), “was, as we know, history . . . The present epoch will perhaps

be above all the epoch of space . . .”. Thus, the subtitle of Soja’s (1989) *Postmodern Geographies* reads: “The reassertion of space in critical social theory”.

Proponents of PPD claim, with Lyotard (ibid), that the rejection of any Archimedean point allows a highly dynamic and creative interpretation of society, culture and science. Critics of postmodernism, namely physicists Sokal and Bricmont (1998) in their *Fashionable Nonsense*, argued that such a rejection leads to the “abuse of science”. Modernist social theorists have claimed that the rejection of such a point, be it an objective truth or alternatively a social consensus in Habermas’ (1984–7) sense of ‘communicative action’ (see Chap. 12), makes postmodernism unethical (Habermas 1992). In a similar manner, Gellner (1992, p 49) argued that postmodernism is essentially a form of extreme modernist relativism that in its turn “*does* entail nihilism”. Postmodernists have responded by saying that PPD approaches are not nihilist in that they hold an ethical position that can be described as a “softer”, context dependent, form of modernist ethical standpoints. Thus, in the concluding section to his book *Dear* (2000, p 318) writes: “I do not pretend to be a ‘pure’ postmodernist; my scholarly, personal and professional lives are too committed to social activism to be comfortable with extremes of relativism. But my . . . commitments to . . . Marxian epistemologies . . . have been radically undermined”. On the other hand, deconstructivism in architecture (a notion that echoes and negates the Russian constructivism of the 1920s) goes hand in hand with capitalist-liberalist ideologies that typify the current global economy (for example, the architecture of Eisenman, Gehry, Tscumi or Hadid and the work and writing of Koolhaas 1995).

There is no place here to further elaborate on the debate concerning the various PPD positions. (For a detailed discussion of the various views and their relation to urban studies, see Dear 2000, in particular Chap. 2). However, regardless of what one’s position on the above is, it would be fair to say that the various notions of PPD authentically reflect the experiential sensation of life and society at the end of the 20th and the beginning of the 21st centuries: a somewhat chaotic and unstable *Network Society* (Castells 1996), highly connected by complex channels of communication, constantly under a bombardment of information of all sorts, a fast changing world, with shrinking distances, loss of direction, and all the rest. Postmodernists tend to interpret these phenomena as markers of a genuine post-modern reality (Lyotard 1984), while others follow Harvey’s (1989) view that these post-modern phenomena are in effect modernism in disguise – markers of the latest stage of capitalism and by implication of modernism.

3.3.1 *The PPD City*

The image of the city as emerging out of the various PPD writings is an image of an untamed, shrew, capricious and ever-changing city; actually it is not a city but a text; a text written by millions of unknown writers, unaware that they are writers, read by millions of readers, each reading his or her own personal and subjective story in this ever-changing chaotic text, thus changing and recreating and further

complicating it. Today's urbanism is a big theatre at the center of whose stage we see a kaleidoscope of shapes and forms, high-tech science-fiction structures mixed with pharaonic lotus capitals from the second millennium B.C. Egypt (e.g., Sterling's Staatsgalerie in Stuttgart), and in and around it a similarly pluralistic kaleidoscope of cultures and subcultures of Italians, Chinese, Japanese, Jews, Indians, Gays, Lesbians ... Somewhere at the side of this second-millennium urban stage, way in the periphery, one can still observe the base and the super-structure, with their modes and relations of production, the capitalists versus the proletariat, talking, shouting in vain trying to be heard. In this PPD city nothing is stable, nothing is true nor does anything matter for more than a second, not the Marxist urban categories, nor any other grand theory or truth: all must go, must move, clear the way to the new next whatever it is.

For the pessimist positivist and SMH urbanist or planner this sounds chaotic; for optimists – highly desirable and creative: an ever-changing, ever-moving reality. Yet this is not what takes place in the currently emerging postmodern reality; at least not up till now. Take the emerging urban landscape and architecture, probably the most visible representation of PPD. Indeed, it started with free and creative quotations from the futurist high-tech Archigram architecture (Cook 1972) and 2nd millennium B.C. Egyptian columns. However, very quickly it turned into a uniform style with the double column, the gable and the circular window as its trademarks. Walk around in Tel Aviv and you'll see that you can't instantly not identify the uniform, postmodern, style. And yet, the words 'uniform' and 'style' are the very opposite of postmodernism.

As further elaborated below in connection with urban planning (Chap. 12), the postmodern trend toward plurality and coexistence, in art, science, urbanism, and society, is at least problematic – and this is indeed its deadlock: You can't tame, plan, engineer, the environment, since you are trapped in its chaos, and you cannot participate in its chaotic interplay since you are trapped in its structure, fashion, and style. This deadlock shows up in a debate in the geographical journal *Society and Space* (1987) on modern and postmodern geography and planning. Postmodern geographers accuse David Harvey that his Marxist-structuralist geography is totalitarian, and Harvey responds that there is nothing more totalitarian than such an accusation. Both are right, of course, since both are playing a zero-sum game: there is no room for chaos in the highly ordered Marxist world and there is no room for stable structures in the highly chaotic postmodern city.

3.4 The Third Way

The major tension in the study of cities has been described above as the tension between the two cultures of cities that correspond, as noted, to Snow's two cultures. That is to say, the tension between attempts toward a science of cities (first culture) versus attempts at a critical, socially relevant, study of cities (second culture). While this tension indeed gave the tone and dominated the field during the second

half of the 20th century, there have been other approaches that did not conform with the two main parallel streams but nevertheless suggested an alternative way or rather ways of looking at the city. I'm referring to projects such as Jane Jacobs' (1961) *The Death and Life of Great American Cities*, Christopher Alexander's (1965, 1979, 2002–2004, Alexander et. al. 1979.) publications ranging from "A city is not a tree" and *Pattern Language* to his recent *On the Nature of Order*, and, Torsten Hägerstrand's (1969) *Time Geography*.

Similarly to the SMH second culture of cities, Jacobs and Alexander were and are critical of the first science of cities; however, their criticisms differ from the SMH's in several respects. First, unlike the SMH criticism that was essentially political and as such directed toward the entire liberal-capitalist system that dominates Western society, their criticism of the first culture of cities was directed toward the scientific method and its application to cities, city planning and urban design. Second and as an implication from the above, unlike SMH that started with the overall capitalist system and as a consequence saw the city as a representation or derivation from it, their criticism started with and from the nature of the city itself. Third, unlike SMH that focused mainly on the phenomenon of urbanism, their main concern was city planning and design. Something went wrong with our perception and understanding of cities, claimed Jacobs and Alexander, each in her/his own way, and as a consequence of this misunderstanding, something is wrong also in the way we intervene in the dynamics of cities by means of urban planning and design.

I'll describe the work of the above two in subsequent chapters: The work of Alexander in Part II that suggests a cognitive approach to the complexity of cities, and the ideas of Jacobs in Part III in the context of a discussion on complexity and planning. I bring them here because of their close association with CTC (complexity theories of cities). In fact, I share with Batty (below Chap. 5) the view that these theories and views were forerunners of CTC. Jane Jacobs with her great intuition and penetrating observations into city-life was able to note already in the 1960s that cities emerge bottom-up out of the local interaction between their inhabitants and users and that the seemingly chaotic appearance of cities suits human life as a glove to an hand. A few years later Alexander (1965) drew attention to a fundamental property of the city, namely, that it is a complex network – a *semi lattice* network – and that this complexity arises out of the complexity of the human mind – a point he elaborated in his further works that showed that people perceive, behave in, and act on, the environment by means of patterns that exist in their minds and in the world.

A third exemplar of the third way is Torsten Hägerstrand (1969) with his project "*Time Geography*" that he initiated in a paper entitled "*What about people in regional science*". Hägerstrand never wrote explicitly on cities and their planning; however, I do include him in this group because like them he did not conform with the two cultures of cities and because his emphasis on time, daily routine and the individual touches some of the basic properties of complexity: bottom-up, local interaction and the power of daily routines that to my mind is the "weak force" of urban dynamics. His project and its connection with complexity theory are described next.

3.4.1 Hägerstrand's City of Daily Routines

SMH urban studies were indeed the most prominent critiques and the ones that had the most dominant impact on the subsequent evolution of the field. However, there was another line of criticism that at the time looked as promising as SMHs but at a later stage gradually evaporated for reasons that to my mind are essentially cultural. I'm referring to Hägerstrand's project *Time Geography*.

In 1969, Hägerstrand presented a paper entitled "What about people in regional science" to the European Congress of the Regional Science Association in Copenhagen and a year later published the paper in the journal of that association (Hägerstrand 1970). "What about people . . ." became a seminal paper that started a new brand of geography and spatial analysis known as *time geography*. In this paper Hägerstrand puts forward several innovative suggestions. First, that in addition to the study of cities by means of representative statistical samples, we might as well benefit from studying single individuals. Second, that this can be done by mapping the movement of individuals not only in space, as is usual in urban studies, but in space and time simultaneously – hence, time geography. Third, when observing an individual's trajectories in space-time, one realizes that the individual is always in movement: when staying in a single location s/he is moving in time; when moving between locations, the individual is moving in space-time. Fourth, when observing the space-time movement of individuals in the city, one realizes that much of it is routinized (Fig. 3.3) – hence the notion of "dance" in this context. Fifth, that by observing individuals' space-time movement, or "dance", in the city, and by focusing mainly on their routinized movement, one can learn about the nature of the urban environment within which people are operating. The city of daily routines opens a window into the significance of the "weak force" of the city – the daily and the personal and the ordinary; not only as a methodology to identify and study the system of space-time constraints within which individuals are operating, but also into the way individuals by their normal day-to-day life create and construct the city as a humane place.

Hägerstrand's time geography was accepted with enthusiasm, several publications followed (Carlstein 1981; Carlstein et. al. 1978; May and Thrift 2001), and the new notion was also adopted by social theorist Giddens (1984) in his theory of *structuration*. But then it almost disappeared and was mentioned mainly in texts about the history of geography (Peet 1998). The reasons for this discontinuation in the space-time theory is to my mind the treatment given to it by Giddens whose work became influential in social geography. Giddens gave Hägerstrand's time geography a bear hug: On the one hand, he made remarks indicating that Hägerstrand's time geography made significant contribution to social theory by stressing (Peet, *ibid*, 158-9)

"the routinized character of daily life connected with the basic features of the human body, its mobility and means of communication . . . According to Giddens . . . Hägerstrand identified sources of constraint over human activity . . ."

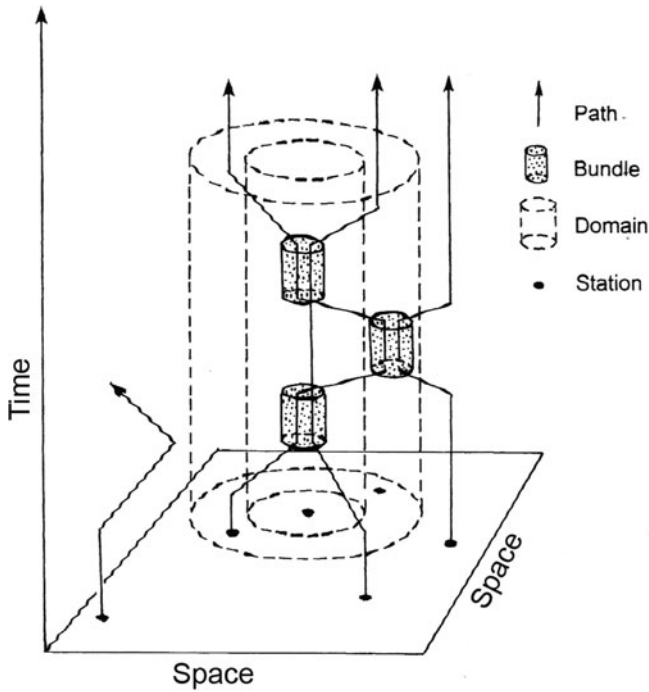


Fig. 3.3 Hägerstrand’s web model of time geography. The *path* represents the daily movement in space-time of an individual; the *bundle* is the space-time place/cylinder where the individual congregates with other individuals (e.g., home, work, school, etc.), while the *domain* describes the space-time area/cylinder within which the individual’s daily movement takes place

On the other hand, however,

Giddens (1984, p 116–18) expresses reservations about Hägerstrand’s time geography: he thinks that it operates with a naïve and defective conception of the human agent; it recapitulates the dualism of action and structure; it focuses on constraint but does not see this also as an opportunity; it has a weakly developed theory of power . . .” (Peet 1998, p 158–9).

Hägerstrand has formulated his time geography at a bifurcation point – at a period during which the major tension in the study of cities was between positivism and SMH urban studies that eventually split into two parallel currents. In such a cultural climate there was no room for ideas that do not conform to one of the main conflicting streams. As a consequence, at such a period a criticism from Giddens that at the time was very influential in SMH urban studies, simply put an end to the attempt to further develop time geography and realize its full potential. This was unfortunate because, firstly, Hägerstrand’s time geography is simple, beautiful and elegant theory; secondly, it can be linked, on the one hand, to quantitative approaches while, on the other, to SMH approaches, with the implication that it could have linked the two; thirdly, as we shall see below, it can also be naturally related to complexity theory.

3.5 CTC as a Link Between the Two Cultures of Cities

CTC is in an interesting position: On the one hand, as a theoretical body that originated in the sciences, mainly in physics, it came with a whole arsenal of mathematical formalisms; in this respect it is close to the first culture of cities. And indeed, many of the proponents of CTC see it as the new and more sophisticated science of cities. On the other hand, complexity theory and CTC have many similarities to PPD so much so that several scholars have interpreted complexity theory as the scientific counterpart of PPD or even as a “scientific proof” of the PPD world views. My personal view is that the similarity to PPD is somewhat superficial and that the more profound similarity is with the early forerunners described above and with “modern” social theory oriented views of the city.

This association of CTC with the first culture of cities with its quantitative approaches, and at the same time with qualitative-hermeneutic approaches of the second culture of cities, makes complexity and self-organization a paradigm which has the potential to provide a common integrative ground for the various cities described above and below and thus to reconcile their seemingly irreconcilable nature. To see how, we first need to have a deeper look into CTC. This is the task of the next chapter.