The Cybercities Reader

Edited by

Stephen Graham

'Space of Flows, Space of Places: Materials for a Theory of Urbanism in the Information Age'

Manuel Castells

Editor's Introduction

One of the leading theorists of the changing nature of capitalist cities over the past thirty years has been the Catalan urban sociologist Manuel Castells. After pioneering Marxist analyses of cities and collective consumption in the 1960s and 1970s, Castells has, since the late 1980s, produced a range of highly influential analyses of the implications of ICTs, and the changing nature of capitalism, for cities, urbanisation, and social and cultural change. These have been published within his Blackwell books *The Informational City* (1989) and his trilogy of books on the *Information Age* (1996–8).

Adopting a broadly coevolutionist perspective to the relations between cities and ICTs, Castells centres his theorisation on the notion that cities are caught up in a complex interplay of what he calls the 'space of flows' – the accelerating domains of translocal and transnational technological movement and flow – and the 'space of places' – the geographic spaces and communities of everyday life in cities. His far-reaching analyses have addressed the implications of the tensions between these two domains for: the development of the networked economy; social and cultural struggles over resources and power; the changing nature of social movements and social identities; and the changing geographical structures of cities around the world.

In this extended reading Castells gives a comprehensive summary of his theorisation of how the interactions of the space of flows and the space of places combine to shape contemporary cities. Notably, unlike Deleuze or Virilio, Castells mobilises these concepts to sustain detailed empirical discussions of a range of transformations in a wide range of cities across the world.

In this summary Castells suggests that articulations between the space of flows and the space of places are leading to a wide variety of shifts of the ways in which function, form, and meaning are produced within contemporary cities. Using this perspective, Castells explores transformations in the economic dynamics of cities, urban physical form, the changing nature of the patriarchical family, the growing multiculturalism of cities, deepening patterns of social segregation, the growing influence of transnational organised crime, and challenges to the meaning and nature of urban public space. Prefiguring some of the reflections in Section VIII of this book, Castells also analyses the ways in which urban planning, design and governance practices might respond to these multiple transformations.

We have entered a new age, the Information Age. Spatial transformation is a fundamental dimension of the overall process of structural change. We need a new theory of spatial forms and processes, adapted to the new social, technological, and spatial context where we live. I will attempt here to propose some elements of this theory, a theory of urbanism in the information age. I will not develop the analysis of the meaning of the information age, taking the liberty to refer the reader to my trilogy on the matter (Castells, 1996–2000).
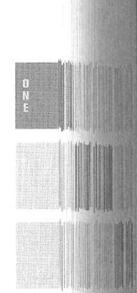
I will not build theory from other theories, but from the observation of social and spatial trends in the world at large. Thus, I will start with a summary characterization of the main spatial trends at the onset of the twenty-first century. Then I will propose a tentative theoretical interpretation of observed spatial trends. Subsequently I will highlight the main issues arising in cities in the information age, with particular emphasis on the crisis of the city as a socio-spatial system of cultural communication. I will conclude by drawing some of the implications of my analysis for planning, architecture and urban design.

THE TRANSFORMATION OF URBAN SPACE IN THE EARLY TWENTY-FIRST CENTURY

Spatial transformation must be understood in the broader context of social transformation: space does not reflect society, it expresses it, it is a fundamental dimension of society, inseparable from the overall process of social organisation and social change. Thus, the new urban world arises from within the process of formation of a new society, the network society, characteristic of the Information Age. The key developments in spatial patterns and urban processes associated with these macro-structural changes, can be summarized under the following headings (Scott, 2001):

- Because commercial agriculture has been, by and large, automated, and a global economy has integrated productive networks throughout the planet, the majority of the world's population is already living in urban areas, and this will be increasingly the case: we are heading towards a largely urbanized world, which will comprise between two-thirds and three-quarters of the total population by the middle of the century (Freire and Stren, 2001).

- This process of urbanization is concentrated disproportionately in metropolitan areas of a new kind: urban constellations scattered throughout huge territorial expanses, functionally integrated and socially differentiated, around a multi-centered structure. I call these new spatial forms metropolitan regions (Garreau, 1991; Hall, 2001; Nel.Lo, 2001; Dunham-Jones, 2000).

- Advanced telecommunications, Internet, and fast, computerized transportation systems allow for simultaneous spatial concentration and decentralization, ushering in a new geography of networks and urban nodes throughout the world, throughout countries, between and within metropolitan areas (Wheeler *et al.*, 2000).

- Social relationships are characterized simultaneously by individuation and communalism, both processes using, at the same time, spatial patterning and online communication. Virtual communities and physical communities develop in close interaction, and both processes of aggregation are challenged by increasing individualization of work, social relationships, and residential habits (Russell, 2000; Wellman, 1999; Putnam, 2000).

- The crisis of the patriarchal family, with different manifestations depending on cultures and levels of economic development, gradually shifts sociability from family units to networks of individualized units (most often, women and their children, but also individualized co-habiting partnerships), with considerable consequences in the uses and forms of housing, neighborhoods, public space, and transportation systems.

- The emergence of the network enterprise as a new form of economic activity, with its highly decentralized, yet coordinated, form of work and management, tends to blur the functional distinction between spaces of work and spaces of residence. The work–living arrangements characteristic of the early periods of industrial craft work are back, often taking over the old industrial spaces, and transforming them into informational production spaces. This is not just New York's Silicon Alley or San Francisco's Multimedia Gulch, but a phenomenon that also characterizes London, Tokyo, Beijing, Taipei, Paris, or Barcelona, among many other cities. Transformation of productive uses becomes more important than residential succession to explain the new dynamics of urban space (Mitchell, 1999; Horan, 2000).

- Urban areas around the world are increasingly multi-ethnic, and multicultural. An old theme of the Chicago School, now amplified in terms of its extremely diverse racial composition (Waldinger, 2001).

- The global criminal economy is solidly rooted in the urban fabric, providing jobs, income, and social organisation to a criminal culture, which deeply affects the lives of low-income communities, and of the city at large. It follows rising violence and/or widespread paranoia of urban violence, with the corollary of defensive residential patterns.

- Breakdowns of communication patterns between individuals and between cultures, and the emergence of defensive spaces, leads to the formation of sharply segregated areas: gated communities for the rich, territorial turfs for the poor (Blakely and Snyder, 1997; Massey, 1996).

- In a reaction against trends of suburban sprawl and the individualization of residential patterns, urban centers and public space become critical expressions of local life, benchmarking the vitality of any given city (Hall, 1998; Borja and Zaida, 2001). Yet, commercial pressures and artificial attempts at mimicking urban life often transform public spaces into theme parks where symbols rather than experience create a life-size, urban virtual reality, ultimately destined to mimic the real virtuality projected in the media. It follows increasing individualization, as urban places become consumption items to be individually appropriated (Fernandez-Galiano, 2000).

- Overall, the new urban world seems to be dominated by the double movement of inclusion into transterritorial networks, and exclusion by the spatial separation of places. The higher the value of people and places, the more they are connected into interactive networks. The lower their value, the lower their connection. In the limit, some places are switched off, and bypassed by the new geography of networks, as is the case of depressed rural areas and urban shanty towns around the world. Splintering urbanism operates on the basis of segregated networks of infrastructure, as empirically demonstrated by Graham and Marvin (2001).

- The constitution of mega-metropolitan regions, without a name, without a culture, and without institutions, weakens the mechanism of political accountability, of citizen participation, and of effective administration (Sassen, 2001). On the other hand, in the age of globalization, local governments emerge as flexible institutional actors, able to relate at the same time to local citizens and to global flows of power and money (Borja and Castells, 1997). Not because they are powerful, but because most levels of government, including the nation states, are equally weakened in their capacity of command and control if they operate in isolation. Thus, a new form of state emerges, the network state, integrating supra-national institutions made up of national governments, nation-states, regional governments, local governments, and even non-governmental organizations. Local governments become a node of the chain of institutional representation and management, able to input the overall process, yet with added value in terms of their capacity to represent citizens at a closer range. Indeed in most countries, opinion polls show the higher degree of trust people have in their local governments, relative to other levels of government. However, institutions of metropolitan governance are rare and when they exist they are highly centralized, with little citizen participation. There is an increasing gap between the actual unit of work and living, the metropolitan region, and the mechanisms of political representation and public administration. Local governments compensate for this lack by cooperating and competing. Yet, by defining their interests as specific subsets of the metropolitan region, they (often unwillingly) contribute to further fragmentation of the spatial framing of social life.

- Urban social movements have not disappeared, by any means. But they have mutated. In an extremely schematic representation they develop along two main lines. The first is the defense of the local community, affirming the right to live in a particular place, and to benefit from adequate housing and urban services in their place. The second is the environmental movement, acting on the quality of cities within the broader goal of achieving quality of life: not only a better life but a different life. Often, the broader goals of environmental mobilizations become translated into defensive reactions to protect one specific community, thus merging the two trends. Yet, it is only by reaching out to the cultural transformation of urban life as proposed by ecological thinkers and activists that urban social movements can transcend their limits of localism. Indeed, enclosing themselves in their communities, urban social movements may contribute to further

spatial fragmentation, ultimately leading to the breakdown of society.

It is against the background of these major trends of urban social change that we can understand new spatial forms and processes, thus re-thinking architecture, urban design and planning in the twenty-first century.

A THEORETICAL APPROACH TO SPATIAL TRANSFORMATION

To make the transition from the observation of urban trends to the new theorization of cities, we need to grasp, at a more analytical level, the key elements of socio-spatial change. I think the transformation of cities in the information age can be organized around three bipolar axes. The first relates to function, the second to meaning, the third to form.

Function

Functionally speaking the network society is organized around the opposition between the global and the local. Dominant processes in the economy, technology, media, institutionalized authority are organized in global networks. But day-to-day work, private life, cultural identity, political participation, are essentially local. Cities, as communication systems, are supposed to link up the local and the global, but this is exactly where the problems start since these are two conflicting logics that tear cities from the inside when try to respond to both, simultaneously.

Meaning

In terms of meaning, our society is characterized by the opposing development of individuation and communalism. By individuation I understand the enclosure of meaning in the projects, interests, and representations of the individual, that is, a biologically embodied personality system (or, if you want, translating from French structuralism, a person). By communalism I refer to the enclosure of meaning in a shared identity, based on a system of values and beliefs to which all other sources of identity are subordinated. Society, of course, exists only in between, in the inter-face

between individuals and identities mediated by institutions, at the source of the constitution of civil society which, as Gramsci argued, does not exist against the state but in articulation with the state, forming a shared public sphere, à la Habermas.

Trends I observe in the formative stage of the network society indicate the increasing tension and distance between personality and culture, between individuals and communes. Because cities are large aggregates of individuals, forced to coexist, and communes are located in the metropolitan space, the split between personality and commonality brings extraordinary stress upon the social system of cities as communicative and institutionalizing devices. The problematique of social integration becomes again paramount, albeit under new circumstances and in terms radically different from those of early industrial cities. This is mainly because of the role played in urban transformation by a third, major, axis of opposing trends, this one concerning spatial forms.

Forms

There is a growing tension and articulation between the space of flows and the space of places.

The space of flows links up electronically separate locations in an interactive network that connects activities and people in distinct geographical contexts. The space of places organizes experience and activity around the confines of locality. Cities are structured, and destructured simultaneously by the competing logics of the space of flows and the space of places. Cities do not disappear in the virtual networks. But they are transformed by the interface between electronic communication and physical interaction, by the combination of networks and places. As William Mitchell (1999), from an urbanist perspective, and Barry Wellman (1999), from a sociological perspective, have argued, the informational city is built around this double system of communication. Our cities are made up, at the same time, of flows and places, and of their relationships. Two examples will help to make sense of this statement, one from the point of view of the urban structure, another in terms of the urban experience.

Turning to urban structure, the notion of global cities was popularized in the 1990s. Although most people assimilate the term to some dominant urban centers, such as London, New York and Tokyo, the concept of global city does not refer to any particular

city, but to the global articulation of segments of many cities into an electronically linked network of functional domination throughout the planet. The global city is a spatial form rather than a title of distinction for certain cities, although some cities have a greater share of these global networks than others. In a sense, most areas in all cities, including New York and London, are local, not global. And many cities are sites of areas, small and large, which are included in these global networks, at different levels. This conception of global city as a spatial form resulting from the process of globalization is closer to the pioneering analysis by Saskia Sassen (1991) than to its popularized version by city marketing agencies. Thus, from the structural point of view, the role of cities in the global economy depends on their connectivity in transportation and telecommunication networks, and on the ability of cities to mobilize effectively human resources in this process of global competition. As a consequence of this trend, nodal areas of the city, connecting to the global economy, will receive the highest priority in terms of investment and management, as they are the sources of value creation from which an urban node and its surrounding area will make their livelihood. Thus, the fate of metropolitan economies depends on their ability to subordinate urban functions and forms to the dynamics of certain places that ensure their competitive articulation in the global space of flows.

From the point of view of the urban experience, we are entering a built environment that is increasingly incorporating electronic communication devices everywhere. Our urban life fabric, as Mitchell (1999) has pointed out, becomes an *e-topia*, a new urban form in which we constantly interact, deliberately or automatically, with online information systems, increasingly in the wireless mode. Materially speaking, the space of flows is folded into the space of places. Yet, their logics are distinct: online experience and face-to-face experience remain specific, and the key question then is to assure their articulation in compatible terms.

These remarks may help in the re-configuration of the theory of urbanism in response to the challenges of the network society, and in accordance to the emergence of new spatial forms and processes.

THE URBAN THEMES OF THE INFORMATION AGE

The issue of social integration comes again at the forefront of the theory of urbanism, as was the case during the process of urbanization in the industrial era. Indeed, it is the very existence of cities as communication artefacts that is called into question, in spite of the fact that we live in a predominantly urban world. But what is at stake is a very different kind of integration. In the early twentieth century the quest was for assimilation of urban sub-cultures into the urban culture. In the early twenty-first century the challenge is the sharing of the city by irreversibly distinct cultures and identities. There is no more dominant culture, because only global media have the power to send dominant messages, and the media have in fact adapted to their market, constructing a kaleidoscope of variable content depending on demand, thus reproducing cultural and personal diversity rather than overimposing a common set of values. The spread of horizontal communication via the Internet accelerates the process of fragmentation and individualization of symbolic interaction. Thus, the fragmented metropolis and the individualization of communication reinforce each other to produce an endless constellation of cultural subsets. The nostalgia of the public domain will not be able to countervail the structural trends towards diversity, specification, and individualization of life, work, space and communication, both face to face, and electronic (Russell, 2000; Putnam, 2000). On the other hand, communalism adds collective fragmentation to individual segmentation. Thus, in the absence of a unifying culture, and therefore of a unifying code the key question is not the sharing of a dominant culture but the communicability of multiple codes.

The notion of communication protocols is central here. Protocols may be physical, social, and electronic, with additional protocols being necessary to relate these three different planes of our multidimensional experience.

Physically, the establishment of meaning in these nameless urban constellations relates to the emergence of new forms of symbolic nodality which will identify places, even through conflictive appropriation of their meaning by different groups and individuals (Dunham-Jones, 2000).

The second level of urban interaction refers to social communication patterns. Here, the diversity of expressions of local life, and their relationship to media
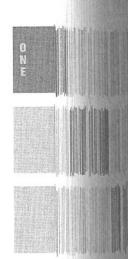
culture, must be integrated into the theory of communication by doing rather than by saying. In other words, how messages are transmitted from one social group to another, from one meaning to another in the metropolitan region requires a redefinition of the notion of public sphere moving from institutions to the public place, away from Habermas and towards Kevin Lynch. Public places, as sites of spontaneous social interaction, are the communicative devices of our society, while formal, political institutions have become a specialized domain that hardly affects the private lives of people, that is, what most people value most. Thus, it is not that politics, or local politics, does not matter. It is that its relevance is confined to the world of instrumentality, while expressiveness, and thus communication, refers to social practice, outside institutional boundaries. Therefore, in the practice of the city, its public spaces, including the social exchangers (or communication nodes) of its transportation networks become the communicative devices of city life (Borja and Zaida, 2001; Mitchell, 1999). How people are, or are not, able to express themselves, and communicate with each other, outside their homes and off their electronic circuits, that is, in public places, is an essential area of study for urbanism. I call it the sociability of public places in the individualized metropolis.

The third level of communication refers to the prevalence of electronic communication as a new form of sociability. Studies by Wellman, by Jones, and by a growing legion of social researchers have shown the density and intensity of electronic networks of communication, providing evidence to sustain the notion that virtual communities are often communities, albeit of a different kind than face to face communities (Wellman and Haythornthwaite, 2002; Jones, 1998). Here again, the critical matter is the understanding of the communication codes between various electronic networks, built around specific interests or values, and between these networks and physical interaction. There is no established theory yet on these communication processes, as the Internet as a widespread social practice is still in its infancy. But we do know that online sociability is specified, not downgraded, and that physical location does contribute, often in unsuspected ways, to the configuration of electronic communication networks. Virtual communities as networks of individuals are transforming the patterns of sociability in the new metropolitan life, without escaping into the world of electronic fantasy (Castells, 2001).

Fourth, the analysis of code sharing in the new urban world requires also the study of the interface between physical layouts, social organization, and electronic networks. It is this interface that Mitchell considers to be at the heart of the new urban form, what he calls e-topia. In a similar vein, but from a different perspective, Graham and Marvin's (2001) analysis of urban infrastructure as splintered networks, reconfigured by the new electronic pipes of urban civilization, opens up the perspective of understanding cities not only as communication systems, but as machines of deliberate segmentation. In other words, we must understand at the same time the process of communication and that of in-communication.

The contradictory and/or complementary relationships between new metropolitan centrality, the practice of public space, and new communication patterns emerging from virtual communities, could lay the foundations for a new theory of urbanism – the theory of cyborg cities or hybrid cities made up by the intertwining of flows and places (see Part 3).

Let us go farther in this exploration of the new themes for urban theory. We know that telecommuting – meaning people working full time online from their home – is another myth of futurology (Gillespie and Richardson, 2000; see Andrew Gillespie and Ranald Richardson, p. 212). Many people, including you and me, work online from home part of the time, but we continue to go to work in places, as well as moving around (the city or the world) while we keep working, with mobile connectivity to our network of professional partners, suppliers and clients. The latter is the truly new spatial dimension of work. This is a new work experience, and indeed a new life experience. Moving physically while keeping the networking connection to everything we do is a new realm of the human adventure, on which we know little (Kopomaa, 2000; see Zac Carey, p. 133; Timo Kopomaa, p. 267). The analysis of networked spatial mobility is another frontier for the new theory of urbanism. To explore it in terms that would not be solely descriptive we need new concepts. The connection between networks and places has to be understood in a variable geometry of these connections. The places of the space of flows, that is, the corridors and halls that connect places around the world, will have to be understood as exchangers and social refuges, as homes on the run, as much as offices on the run. The personal and cultural identification with these places, their functionality, their symbolism, are essential matters that do not concern

only the cosmopolitan elite. Worldwide mass tourism, international migration, transient work, are experiences that relate to the new huddled masses of the world. How we relate to airports, to train and bus stations, to freeways, to customs buildings, are part of the new urban experience of hundreds of millions. We can build on an ethnographic tradition that addressed these issues in the mature industrial society. But here again, the speed, complexity and planetary reach of the transportation system have changed the scale and meaning of the issues. Furthermore, the key reminder is that we move physically while staying put in our electronic connection. We carry flows and move across places.

Urban life in the twenty-first century is also being transformed by the crisis of patriarchalism. This is not a consequence of technological change, but I have argued in my book *The Power of Identity* (Castells, 1997) that it is an essential feature of the information age. To be sure, patriarchalism is not historically dead. Yet, it is contested enough, and overcome enough so that everyday life for a large segment of city dwellers has already been redefined *vis-à-vis* the traditional pattern of an industrial society based on a relatively stable patriarchal nuclear family. Under conditions of gender equality, and under the stress suffered by traditional arrangements of household formation, the forms and rhythms of urban life are dramatically altered. Patterns of residence, transportation, shopping, education, and recreation evolve to adjust to the multidirectionality of individual needs that have to share household needs. This transformation is mediated by variable configurations of state policies. For instance, how child care is handled by government, by firms, by the market, or by individual networking largely conditions the time and space of daily lives, particularly for children.

We have documented how women are discriminated against in the patriarchal city. We can empirically argue that women's work makes possible the functioning of cities – an obvious fact rarely acknowledged in the urban studies literature (Borja and Castells, 1997: Susser, 1996). Yet, we need to move forward, from denunciation to the analysis of specific urban contradictions resulting from the growing dissonance between the de-gendering of society and historical crystallization of patriarchalism in the patterns of home and urban structure. How do these contradictions manifest themselves as people develop strategies to overcome the constraints of a gendered built environ-

ment ? How do women, in particular, re-invent urban life, and contribute to re-design the city of women, in contrast to the millennial heritage of the city of men (Castells and Servon, 1996)? These are the questions to be researched, rather than stated, by a truly post-patriarchal urban theory.

Grassroots movements continue to shape cities, as well as societies at large. They come in all kind of formats and ideologies, and one should keep an open mind on this matter, not deciding in advance which ones are progressive, and which ones are regressive, but taking all of them as symptoms of society in the making. We should also keep in mind the most fundamental rule in the study of social movements. They are what they say they are. They are their own consciousness. We can study their origins, establish their rules of engagement, explore the reasons for their victories and defeats, link their outcomes to overall social transformation, but not to interpret them, not to explain to them what they really mean by what they say. Because, after all, social movements are nothing else than their own symbols and stated goals, which ultimately means their words.

Based on the observation of social movements in the early stage of the network society, two kinds of issues appear to require privileged attention from urban social scientists. The first one is what I called some time ago the grassrooting of the space of flows, that is the use of Internet for networking in social mobilization and social challenges (Castells, 2000). This is not simply a technological issue, because it concerns the organization, reach, and process of formation of social movements. Most often these online social movements connect to locally based movements, and they converge, physically, in a given place at a given time. A good example was the mobilization against the World Trade Organization meeting in Seattle in December 1999, and against subsequent meetings of globalizing institutions, which, arguably, set a new trend of grass-roots opposition to uncontrolled globalization, and redefined the terms of the debate on the goals and procedures of the new economy. The other major issue in the area of social movements is the exploration of the environmental movement, and of an ecological view of social organisation, as urban areas become the connecting point between the global issues posed by environmentalism and the local experience through which people at large assess their quality of life. To redefine cities as eco-systems, and to explore the connection between local eco-systems and the

global eco-system lays the ground for the overcoming of localism by grassroots movements.

On the other hand, the connection cannot be operated only in terms of ecological knowledge. Implicit in the environmental movement, and clearly articulated in the deep ecology theory, as reformulated by Fritjof Capra (1996), is the notion of cultural transformation. A new civilization, and not simply a new technological paradigm, requires a new culture. This culture in the making is being fought over by various sets of interests and cultural projects. Environmentalism is the code word for this cultural battle, and ecological issues in the urban areas constitute the critical battleground for such struggle.

Besides tackling new issues, we still have to reckon in the twenty-first century with the lingering questions of urban poverty, racial and social discrimination, and social exclusion. In fact, recent studies show an increase of urban marginality and inequality in the network society (HDR, 2001). Furthermore, old issues in a new context, become in fact new. Thus, Ida Susser (1996) has shown the networking logic underlying the spread of AIDS among the New York's poor along networks of destitution, stigma, and discrimination. Eric Klinenberg (2000), in his social anatomy of the devastating effects of the 1995 heat wave in Chicago, shows why dying alone in the city, the fate of hundreds of seniors in a few days, was rooted in the new forms of social isolation emerging from people's exclusion from networks of work, family, information, and sociability. The dialectics between inclusion and exclusion in the network society redefines the field of study of urban poverty, and forces us to consider alternative forms of inclusion (e.g. social solidarity, or else, the criminal economy), as well as new mechanisms of exclusion and technological apartheid in the era of Internet.

The final frontier for a new theory of urbanism, indeed for social sciences in general, is the study of new relationships between time and space in the information age. In my analysis of the new relationships of time and space I proposed the hypothesis that in the network society, space structures time, in contrast to the time-dominated constitution of the industrial society, in which urbanization, and industrialization were considered to be part of the march of universal progress, erasing place-rooted traditions and cultures. In our society, the network society, where you live determines your time frame of reference. If you are an inhabitant of the space of flows, or if you live in a locality that is in the dominant networks, timeless time (epitomized by the frantic race to beat the clock) will be your time as in Wall Street or Silicon Valley. If you are in a Pearl River Delta factory town, chronological time will be imposed upon you as in the best days of Taylorism in Detroit. And if you live in a village in Mamiraua, in Amazonia, biological time, usually a much shorter lifespan, will still rule your life. Against this spatial determination of time, environmental movements assert the notion of slow-motion time, the time of the long now, in the words of Stewart Brand, by broadening the spatial dimension to its planetary scale in the whole complexity of its interactions, thus including our great-grand children in our temporal frame of reference (Brand, 1999).

Now, what is the meaning of this multidimensional transformation for planning, architecture, and urban design?

PLANNING, ARCHITECTURE, AND URBAN DESIGN IN THE RECONSTRUCTION OF THE CITY

The great urban paradox of the twenty-first century is that we could be living in a predominantly urban world without cities – that is without spatially based systems of cultural communication and sharing of meaning, even conflictive sharing. Signs of the social, symbolic, and functional disintegration of the urban fabric multiply around the world. So do the warnings from analysts and observers from a variety of perspectives (Kuntsler, 1993; Ascher, 1995; Davis, 1992; Sorkin, 1997; Russell, 2000).

But societies are produced, and spaces are built, by conscious human action. There is no structural determinism. So, together with the emphasis on the economic competitiveness of cities, on metropolitan mobility, on privatization of space, on surveillance and security, there is also a growing valuation of urbanity, street life, civic culture, and meaningful spatial forms in the metropolitan areas around the world The process of reconstruction of the city is under way. And the emphasis of the most advanced urban projects in the world is on communication, in its multidimensional sense: restoring functional communication by metropolitan planning; providing spatial meaning by a new symbolic nodality created by innovative architectural projects; and reinstating the city in its urban form by the practice of urban design

focused on the preservation, restoration, and construction of public space as the epitome of urban life.

However, the defining factor in the preservation of cities as cultural forms in the new spatial context will be the capacity of integration between planning, architecture, and urban design. This integration can only proceed through urban policy influenced by urban politics. Ultimately, the management of metropolitan regions is a political process, made of interests, values, conflicts, debates, and options that shape the interaction between space and society. Cities are made by citizens, and governed on their behalf. Only when democracy is lost can technology and the economy determine the way we live. Only when the market overwhelms culture and when bureaucracies ignore citizens can spatial conurbations supersede cities as living systems of multidimensional communication.

Planning

The key endeavor of planning in the metropolitan regions of the information age is to ensure their connectivity, both intra-metropolitan and inter-metropolitan. Planning has to deal with the ability of the region to operate within the space of flows. The prosperity of the region and of its dwellers will greatly depend on their ability to compete and cooperate in the global networks of generation/appropriation of knowledge, wealth, and power. At the same time planning must ensure the connectivity of these metropolitan nodes to the space of places contained in the metropolitan region. In other words, in a world of spatial networks, the proper connection between these different networks is essential to link up the global and the local without opposing the two planes of operation.

This means that planning should be able to act on a metropolitan scale, ensuring effective transportation, accepting multinodality, fighting spatial segregation by acting against exclusionary zoning, providing affordable housing, and desegregated schooling. Ethnic and social diversity is a feature of the metropolitan region, and ought to be protected. Planning should seek the integration of open space and natural areas in the metropolitan space, going beyond the traditional scheme of the greenbelt. The new metropolitan region embraces a vast territorial expanse, where large areas of agricultural land and natural land should be preserved as a key component of a balanced metropolitan territory. The new metropolitan space is characterized by its multifunctionality, and this is a richness that supersedes the functional specialization and segregation of modernist urbanism. New planning practice induces a simultaneous process of decentering and recentering of population and activities, leading to the creation of multiple subcenters in the region.

The social and functional diversity of the metropolitan region requires a multimodal approach to transportation, by mixing the private automobile/highway system with public metropolitan transportation (railways, subways, buses, taxis), and with local transportation (bicycles, pedestrian paths, specialized shuttle services). Furthermore, in a post-patriarchal world, childcare becomes a critical urban service, and therefore must be integrated in the schemes of metropolitan planning. In the same way that some cities require additional housing and transportation investment per each new job created in certain areas, childcare provision should be included in these planning standards.

Overall, most metropolitan planning nowadays is geared towards the adaptation of the space of places of the metropolitan region to the space of flows that conditions the economic competitiveness of the region. The challenge would be to use planning, instead, to structure the space of places as a living space, and to ensure the connection and complementarity between the economy of the metropolitan region and the quality of life of its dwellers.

Architecture

Restoring symbolic meaning is a most fundamental task in a metropolitan world in crisis of communication. This is the role that architecture has traditionally assumed. It is more important than ever. Architecture, of all kinds, must be called to the rescue in order to recreate symbolic meaning in the metropolitan region, marking places in the space of flows. In recent years, we have observed a substantial revival of architectural meaningfulness that in some cases has had a direct impact in revitalizing cities and regions, not only culturally but economically as well. To be sure, architecture *per se* cannot change the function, or even the meaning, of a whole metropolitan area. Symbolic meaning has to be inserted in the whole fabric of the city, and this is, as I will argue below, the key role of urban design. But we still need meaningful forms

resulting from architectural intervention, to stir a cultural debate that makes space a living form. Recent trends in architecture signal its transformation from an intervention on the space of places to an intervention on the space of flows, the dominant space of the information age by acting on spaces dedicated to museums, convention centers, and transportation nodes. These are spaces of cultural archives, and of functional communication that become transformed into forms of cultural expression and meaningful exchange by the act of architecture.

The most spectacular example is Frank Gehry´s Guggenheim Museum in Bilbao, that symbolized the will of life of a city immersed in a serious economic crisis and a dramatic political conflict. Calatrava´s bridges (Seville, Bilbao), telecommunication towers (Barcelona), airports (Bilbao) or Convention Centers (Valencia) mark the space of flows with sculpted engineering. Bofill´s Barcelona airport, Moneo's AVE railway station in Madrid and Kursaal Convention Center in San Sebastian, Meier´s Modern Art Museum in Barcelona, or Koolhaas´s Lille Grand Palais, are all examples of these new cathedrals of the information age, where the pilgrims gather to search for the meaning of their wandering. Critics point at the disconnection between many of these symbolic buildings and the city at large. The lack of integration of this architecture of the space of flows into the public space would be tantamount to juxtaposing symbolic punctuation and spatial meaninglessness. This is why it is essential to link up architecture with urban design, and with planning. Yet, architectural creation has its own language, its own project that cannot be reduced to function or to form. Spatial meaning is still culturally created. But their final meaning will depend on its interaction with the practice of the city organized around public space.
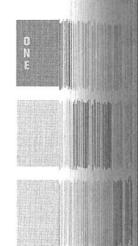
Urban design

The major challenge for urbanism in the information age is to restore the culture of cities. This requires a socio-spatial treatment of urban forms, a process that we know as urban design. But it must be an urban design capable of connecting local life, individuals, communes, and instrumental global flows through the sharing of public places. Public space is the key connector of experience, opposed to private shopping centers as the spaces of sociability.

Borja and Zaida (2001), in a remarkable book supported with case studies of several countries, have shown the essential role of public space in the city. Indeed it is public space that makes cities as creators of culture, organizers of sociability, systems of communication, and seeds of democracy, by the practice of citizenship. This is in opposition to the urban crisis characterized by the dissolution, fragmentation, and privatization of cities. Borja and Zaida document, on a comparative basis, the projects of reconstruction of cities and of the culture of cities around the (re)construction of public space: the synthesis between places and flows is realized in the public space, the place of social cohesion and social exchanges (Borja and Zaida, 2001, 35).

This is in fact a long tradition in urban design, associated with the thinking and practice of Kevin Lynch, and best represented nowadays by Allan Jacobs. Jacobs' work on streets, and, with Elizabeth McDonald, on boulevards as urban forms able to integrate transportation mobility and social meaning in the city, shows that there is an alternative to the edge city, beyond the defensive battles of suburbanism with a human face (Jacobs, 1993) The success of the Barcelona model of urban design is based on the ability to plan public squares, even mini-squares in the old city, that bring together social life, meaningful architectural forms (not always of the best taste, but it does not matter), and the provision of open space for people's use. That is, not just open space, but marked open space, and street life induced by activities, such as the tolerance of informal trade, street musicians etc.

The reconquest of public space operates throughout the entire metropolitan region, highlighting particularly the working-class peripheries, those that need the most attention to socio-spatial reconstruction. Sometimes the public space is a square, sometimes a park, sometimes a boulevard, sometimes a few square meters around a fountain or in front of a library or a museum. Or an outdoor café colonizing the sidewalk. In all instances what matters is the spontaneity of uses, the density of the interaction, the freedom of expression, the multifunctionality of space, and the multiculturalism of the street life. This is not the nostalgic reproduction of the medieval town. In fact, examples of public space (old, new, and renewed) dot the whole planet, as Borja has illustrated in his book. It is the dissolution of public space under the combined pressures of privatization of the city and the rise of the space of flows that is a historical oddity. Thus, it is not the past versus the

future, but two forms of present that fight each other in the battleground of the emerging metropolitan regions. And the fight, and its outcome, is of course, political, in the etymological sense: it is the struggle of the polis to create the city as a meaningful place.

THE GOVERNMENT OF CITIES IN THE INFORMATION AGE

The dynamic articulation between metropolitan planning, architecture, and urban design is the domain of urban policy. Urban policy starts with a strategic vision of the desirable evolution of the metropolitan space in its double relationship to the global space of flows and to the local space of places. This vision, to be a guiding tool, must result from the dynamic compromise between the contradictory expression of values and interests from the plurality of urban actors. Effective urban policy is always a synthesis between the interests of these actors and their specific projects. But this synthesis must be given technical coherence and formal expression, so that the city evolves in its form without submitting the local society to the imperatives of economic constraints or technological determinism.

The constant adjustment between various structural factors and conflictive social processes is implemented by the government of cities. This is why good planning or innovative architecture cannot do much to save the culture of cities unless there are effective city governments, based on citizen participation and the practice of local democracy. Too much to ask for? Well, in fact, the planet is dotted with examples of good city government that make cities livable by harnessing market forces and taming interest groups on behalf of the public good. Portland, Toronto, Barcelona, Birmingham, Bologna, Tampere, Curitiba, among many other cities, are instances of the efforts of innovative urban policy to manage the current metropolitan transformation (Borja and Castells, 1997; Verwijnen and Lehtovuori, 1999; Scott, 2001). However, innovative urban policy does not result from great urbanists (although they are indeed needed), but from courageous urban politics able to mobilize citizens around the meaning of their environment.

CONCLUSION

The new culture of cities is not the culture of the end of history. Restoring communication may open the way to restoring meaningful conflict. Currently, social injustice and personal isolation combine to induce alienated violence. So, the new culture of urban integration is not the culture of assimilation into the values of a single dominant culture, but the culture of communication between an irreversibly diverse local society connected/disconnected to global flows of wealth, power, and information.

Architecture and urban design are sources of spatio-cultural meaning in an urban world in dramatic need of communication protocols and artefacts of sharing. It is commendable that architects and urban designers find inspiration in social theory, and feel as concerned citizens of their society. But first of all, they must do their job as providers of meaning by the cultural shaping of spatial forms. Their traditional function in society is more critical than ever in the information age, an age marked by the growing gap between splintering networks of instrumentality and segregated places of singular meaning. Architecture and design may bridge technology and culture by creating shared symbolic meaning and reconstructing public space in the new metropolitan context. But they will only be able to do so with the help of innovative urban policy supported by democratic urban politics.

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