Multimobility, Multispeed Cities: A Challenge for Architects, Town Planners, and Politicians

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An important characteristic of the metropolitan landscape is the mobility of its inhabitants, who utilize multiple modes at multiple speeds. The essence of mobility is presented here through a progression of thoughts that describe its importance and the challenges it poses for the future form of urbanized regions.

The history of cities is deeply interwoven with specific techniques for transporting and storing people, information and goods/values. Thus, even early cities needed to develop a dense building fabric, money, accounting, written records, and food-preservation techniques.

Techniques for transportation and storage of people, information and goods constitute a system. These techniques constitute an interdependent system: there are few movements that do not simultaneously mobilize resources from all three of these domains.

The form of cities and the functional and social organization of urban spaces interact with the techniques of transportation and storage. The system for transporting and storing people, information and goods has a profound impact on the shape of the city, on urban space and social organization. Zoning, urban densities, centralities, axial ties, polarization, and the functional and social segregation that occur within our cities depend upon and simultaneously shape their development.

The dynamics of the system for transporting and storing people, information and goods accelerate big-city growth and “metropolization.” Contrary to the beliefs of many thinkers, the development of private transportation and telecommunications technologies has not resulted in the demise of cities. On the contrary, as economists such as Paul Krugman have explained, the growth of cities and the concentration of activities promote the development of transportation and telecommunications in mutually reinforcing ways. Being “social objects,” technologies are rooted in the logic of society, and serve the agents that dominate it. Thus, it is hard to imagine that they would run counter to the conditions of their creation. We can conclude that NICT (New Information and Communication Technologies) and private transportation have thus promoted metropolization rather than limit it.

Information technologies contribute to the physical mobility of goods, people and information. By the beginning of the twentieth century, the telephone was already creating more face-to-face exchanges than it replaced. Specifically, it made it possible for people to maintain personal and professional relations at a distance, while facilitating meetings between people. The result was a new scale of urban organization.

The same is true of today’s NICT, which have generated more possibilities for mobility than they have replaced, albeit of a different kind. Today, business and scientific communities, as well as ties between family and friends, operate on an increasingly global scale, and much medium-distance mobility has been replaced by long-distance movement. The expansion of economic and social life is directly linked to increases in the speed at which people, goods and information travel.

Two main models of urban organization: Hubs-and-spokes and percolation. A system of hubs and spokes is a type of network strictly associated with the development of rapid transportation systems, which are transforming our urban hierarchies and networks. Speed minimizes the need for stops and makes it efficient for flows to spread outward from focal platforms called hubs.

This type of reticular organization obviously applies to air transportation, with its huge airport platforms. However, it also extends to freight transportation, relying on multimodal logistical platforms located near nodes of communication. And it refers to the urban and interurban transportation of people, which determines the concentration of activities around multimodal stations and road crossings at the outskirts of cities.

The model of hubs and spokes exists alongside another new form of travel, which we could describe metaphorically as percolation. Just as Zygmunt Bauman wrote about the liquefaction of modernity, the ability of car drivers to move through heterogeneous urban areas, and the capacity to navigate labyrinthine environments that have no guiding thread to direct the flows, can be likened to a form of percolation.

The NICT paradox, which give value to what cannot be digitized for storage and tele-transportation. In a context like the one described, face-to-face encounters and the ability to touch, taste and feel, are becoming increasingly precious. As the rise in property values in the most physically accessible areas shows, an organizational system of hubs and spokes also leads to a growing relative value of physical, actual (as opposed to virtual) accessibility. The consequence for the city is that the attractiveness of an urban space lies in the richness of the multisensory experiences it offers. Thus, stores wishing to compete with e-commerce must allow shoppers the possibility of touching and trying their products. The acoustic and even olfactory design of spaces is also becoming increasingly important.

Similarly, individuals are more and more attracted to events that give them the opportunity to meet other individuals, of being together, of making community.
Lived experience is valued. Parties of all kinds, festivals, big sporting events, communal rituals (parades, carnivals, etc.)—events that punctuate urban life both spatially and temporally—are multiplying. They also play a growing role in the design and management of urban space.

Individuals also use NICT to enhance their autonomy, to control their own space-time. Individualization and increased personal autonomy are not new phenomena; the invention of perspective—the move from a flat representation to representation based on individual viewpoint—is a spectacular example of a centuries-old evolution that started with the Renaissance. Today, individuals are looking for ever greater intimacy, privacy and capacity to control their environment. They want to be able to choose what they do, when they do it, with whom, and where. For this, they have to be able to move in space and time.

To meet their specific needs in space, they use a combination of available transportation devices—airplanes, shopping carts, suitcases on wheels, trains, trams, buses, cars, motorbikes, bicycles, and roller skates, to mention some.

To move in time, they employ techniques that enable them to desynchronize and resynchronize, to store and dispose of information and objects easily and quickly. Some such techniques are new and obvious, from videos to e-mail, mobile phones to voicemail and text messaging. Others are less obvious, including the frozen goods and microwaves that make it easier for an individual to eat, alone or in company, at any time.

In a “choice-oriented society,” mobility is a primary instrument of selection. True, economic and cultural inequalities restrict the choices of certain sections of the population. However, even individuals belonging to socially disadvantaged groups are constantly faced with choices: what to eat, whom to meet, what to do. Choice is an everyday compulsion that is characteristic of life in modern societies. What we do is less and less routine or dictated by tradition.

We are constantly forced to make decisions, in minor

Above: The organization of the traditional city as a series of hubs.
Social ties. In the past social ties were very strong, multiple and functional, belonging to a multiplicity of groups. Today, every individual’s life reflects membership in a series of environments, between which they navigate to the rhythm of their different personal and collective histories. Individual behavior is still socially determined, but it is more diverse, and there is latitude for increasingly personal combinations.

Mobility is both a consequence and an instrument of this societal diversification. It is also an increasingly important element in the construction and expression of each individual’s singular personalities.

A social structure multinetworked by real and virtual mobility. The possibility for individuals to choose despite the social determinants that continue to operate is gradually altering social ties. In the past social ties were very strong, multifunctional and lasting, because a neighbor was often also a workmate, a relative and a friend. Today, when individuals can choose friends and jobs, social bonds are often weaker, but more numerous and incorporated into increasingly complex networks. Society is structured and functions like a network, or rather like a network of networks—which increases the possibilities of mobility for people, goods and information.

A hypertext society. In this society, people increasingly switch between networks, between social universes, employing a combination of real and virtual methods of communication.

Modern methods of transportation and communication allow us to transfer from one social context to another from a working environment to a sports club, from a local relationship with neighbors to an emotional bond with people who live elsewhere but share the same interests.

The social universe thus takes a different configuration for each person, which we could liken to a sort of hypertext. Hypertext is the process whereby we can “click” on a word in a text in order to access the same word in a series of other texts. In a hypertext, the word belongs simultaneously to several texts; in each one, it contributes to the production of different meanings by interacting with other words in the text, but with syntaxes that may vary from one text to another.

Similarly, individuals exist in distinct social fields like words in the different documents of a hypertext. In one, they interact with colleagues according to a professional “syntax”; in another with relatives according to a family “syntax”; in a third with friends in a sporting “syntax.”

The various social fields are different in nature. An individual’s participation in each will vary in duration and motivation. The interactions may be economic, cultural, emotional, reciprocal, hierarchical, conventional, face-to-face, written, spoken, telecommunicational, etc. The fields also vary in scale (from the “local” to the “global”) and in openness. The networks that structure these fields can take the form of stars, webs, and hierarchies. Individuals must become skilled in practicing code-switching, juggling different social and cultural codes.

Unequal access to the hypertext. This hypertext metaphor can also be used to identify and analyze social inequalities. Not everyone has the ability to construct social spaces in n dimensions, or to move easily between social fields. The ability to move through a series of fields is not equally accessible to all, so that physical and virtual mobility is becoming an increasingly important cause of individual and social inequality. For some, the network layers collapse: their economic, family, local, and religious fields largely overlap. Unemployed people, or families living in large public housing complexes, have fewer opportunities to be mobile. Their life often depends on “informal” local economies, and their encounters are constituted mainly by people from their own locale.

Cities and the use of transportation and NICT: polarization and dispersal. Fast methods of transportation lead cities to evolve in two directions. Some functions can be concentrated at a restricted number of points, thus increasing the effects of scale and density. Other functions do not require density, and can be far from such concentration points.

Since the end of the nineteenth century American cities have experienced such a phenomenon of simultaneous dispersal and polarization; yet recent technological improvements in transportation, telecommunications, and even engineering have increased its scale and intensity. For example, as architect Rem Koolhaas has pointed out, complex arrangements of lifts and escalators, new building techniques, and air-conditioning systems have made it possible to construct shopping centers of several hundreds of square meters under a single roof.

In addition, private transportation, wireless communications, and the Internet are adding to urban dispersal,
with city dwellers constantly looking further afield for more space and more affordable land.

Metropolization and metapolisization. The two-way process of polarization and dispersal affects urban spaces at every scale. It results in human and material wealth being concentrated in and around ever larger cities—a process I call “metropolization”—while also generating new forms of city growth that I call external growth. Through this process, the largest cities absorb towns and distant villages into their day-to-day perimeter, resulting in a mix of city and countryside held together by transportation and telecommunications. The term “metapolis” describes these new kinds of stretched, heterogeneous, discontinuing, and polycentric urban regions.

New urban places. To some, we are experiencing a proliferation of non-places—and even the disappearance of cities as we know them. These scenarios are nostalgic of old forms of urbanty and promugate the myth of the historic city and its sociability. On the contrary, I consider the emergence of new kinds of places, in particular the spaces of mobility, of transit and of passage, a useful and attractive component of urban form. Airports, motorway service areas, stations, shopping centers, and leisure parks are generated by mobility, real and virtual. They are not causing the demise of traditional places, but are in fact generating new city form and place. New urban places are emerging or reemerging within privately owned spaces, such as shopping centers and malls; within traditional public spaces, such as squares and boulevards; as well as in new ephemeral spaces, such as raves and festivals that temporarily transform and redefine all sorts of places.

From place to hyperplace. The hypermodern society with its hypertext structure generates hyperplaces. The hyperplace is a potential space with multiple physical and social dimensions. It is a space with $n$ dimensions. Individuals can, if they choose to, practice different activities quasi-

Above: The hub-and-spoke model of urban organization is typical of rapid transportation systems.
simultaneously in multiple social fields and with the people of their choice, actually or virtually present.

Being seated on a patio of any city cafe provides all the characteristics of the hyperplace: it is a single space that permits choices and mobilities of all kinds, discussions and social relations and activities. Being seated in an auditorium, however, limits choice; it is not a hyperplace. People in attendance are obliged to listen. Sleeping there, while someone is talking, is socially difficult, because it would invite disapproval; getting up to go elsewhere is impossible for most; using mobile phones is inappropriate; chatting quietly with a neighbor allows for only very limited communication. On the other hand, the cafe terrace, while not exactly a new type of place, is the modern transposition of the Greek agora enriched by new methods of transportation, communication and exchange; new rhythms of life; overlapping activities; cross-breeding between public and private; hybridizations between interior and exterior. One could take up some of the concepts of William Mitchell and add a few giant flat screens and a little bit of virtually enriched reality.

The à la carte 24/7 city, and the challenge of multimodality and intermodality. Citizens of the hypertext society increasingly live lives of constant and multidirectional movement. Day and night, they travel around the extended and polycentric metapolis, using diverse methods of transportation, each with its own advantages and disadvantages. The quality and efficiency of a city, therefore, depend on its ability to offer the widest variety of choices in deciding where to go and how to get there. In the context of an intermodal and multimodal city, parking garages and other transportation-related places are becoming increasingly important—not only as space to store automobiles, to embark or disembark, but as a place to gather, hold meetings, entertain or sleep. This was recently demonstrated by an exhibition organized by the City on the Move Institute in Barcelona.5

Learning to design cities for high-speed movements and at
a range of densities. For city officials, town planners, and architects, then, the aim is to produce new types of places, to create a new urbanity by making room for places that fit the practices and social relations of contemporary society. Urban designers have been successful in creating these types of places in traditional, dense cities, where identities can be constructed out of new contextual elements. They are not equally prepared to design cities in locations of low density—or in fragmented zones, where many people move around alone, quickly and over long distances.

Many architects and town planners respond to discontinuous and low-density areas by proposing their restructuring. Yet it is an illusion to believe that we can return to a village or neighborhood-centered lifestyle, where all our activities take place locally. A return to the past reflects a reactionary belief, and would result in unrealistic policies. The division of labor will not be reversed. Employment areas will occupy ever larger urban spaces to reach the necessary diversity and efficiency of scale. Culture and leisure will continue to generate urban development at a large scale. There is no going back.

It is true that we should try to preserve, or rather develop, the specific qualities of traditional cities.

It is true that we need to find innovative solutions to provide transport for many inhabitants of low-density outlying areas, such as children, the elderly, and the disabled, who do not have access to cars or to public transportations.

It is true that we need to save nonrenewable resources, restrict carbon dioxide emissions, and that spontaneous urban sprawl constitutes a threat in this respect.

Finally, it is true that in most democratic countries local political institutions are ill-adapted to the new metropolitan scale.

Thus, we need to invent new urban models that combine high densities and greater polarizations with increasing levels of spatial dispersal. We need to create a city, not only with collective spaces, multifamily accommodations, and town houses, but also with discontinuous spaces, individual homes with spacious gardens, theme parks, airports, and parking lots. We need to make the city where citizens can choose to travel on foot, but also drive at 30 mph; where residents eat and drink on the move (on foot, in cars, in trains), but are also increasingly attracted to quality food in traditional restaurants. The challenge for today’s planners is to design the urbanity of discontinuous cities, of low-density urban spaces, of citizens on the move, while maintaining the values and quality of the traditional pedestrian city.6

Mobility, however, is a challenge not only for architects and town planners. It is so deeply rooted in our urban societies that it is also a major social and political issue.

Mobility is indispensable from an economic and social standpoint: it is a key condition of access to the job market, to accommodation, to education, to culture, leisure and to family life. In a way, the right to mobility conditions all other human rights; it has become a “basic right” of increasing importance to society.

As mobility becomes a key factor in the day-to-day lives of individuals, the times and places associated with it assume growing importance. In particular, transportation needs to be more convenient, more economical, and more pleasant. Moreover, transportation is no longer simply a means of getting from A to B: it is a part of life.

Finally, it should be emphasized that mobility has a cost—economic, social and environmental. Individuals and social groups should be able to control their mobility. Mobility should contribute to the establishment of social identity; the movements of some should not adversely affect the lives of others. Similarly, transportation of goods and people should not damage natural and cultural heritage; the energies they consume should not mortgage the future of our planet. These are the challenges of a sustainable mobility, and they explain why mobility has become a major issue for our democracies.

Notes
2. As Anthony Giddens underlined, religion and traditions too are now modern, in that they are increasingly a matter of individual choice. See Giddens, The Consequences of Modernity (Cambridge: Polity Press, 1990).
3. The digitization of images has created the further possibility of constructing hypermedia, which link texts, sound documents and images (the prefix “hyper” is used here in the mathematical sense of hyperspace, i.e., n-dimensional space).

All diagrams by author.

Opposite: The combined hub-and-spoke and percolation model typical of the automobile–driven contemporary city. The car allows for percolation of traffic in all directions across the urban fabric.