Edgeless and eccentric cities or new peripheries?

Ester Limonad[1, CDMR], **Heloisa Costa**[2, DFMR]

[1]*Universidade Federal Fluminense*, Instituto de Geociências, Endereço R. Gal. Milton Tavares, s/n – Boa Viagem, 24.210-346 – Niterói – RJ, Brazil; fax: +552 126 295 950, phone: +552 126 295 953, e-mail: ester_limonad@yahoo.com, limonad@vm.uff.br (*corresponding author*); [2] *Universidade Federal de Minas Gerais*, Av. Antônio Carlos, 6627 – Pampulha, 31270-901 – Belo Horizonte – MG, Brazil; fax: +553 134 095 410, phone: +553 134 095 461, e-mail: heloisasmcosta@gmail.com

Abstract. Changes in the organisation of social space, set in motion by the third industrial revolution, affected the spatial distribution of production and population, challenging established conceptions of centralities and urban networks at different scales. Temporal continuities and simultaneities are replacing spatial ones, as urban agglomerations expand in scattered ways. Material and immaterial economic flows are followed by economic and political spatial rearrangements. Eccentric centralities outside urban agglomerations emerge as a result of these spatial movements. The concept of centre-periphery used to be essential to distinguish differences, inequalities and asymmetries in social space, but contemporary urban and metropolitan sprawl defies previous centre-periphery correlations.
Our goal is to discuss the changing notion of centralities within contemporary urbanisation. Hence following a theoretical approach on centralities, poles and positioning, the spatial context of the Belo Horizonte Metropolitan Region is explored as it is experiencing an increasing spatial dispersion of economic activities, population and political power against an historical backdrop of strong centre-periphery relationships. Finally as a closure after analysing the spatial outcome of the Belo Horizonte Metropolitan Region and its perspectives, some questions are enrolled to help to understand the challenges posed to metropolitan planning, in the context of economic articulation with the more general global process and socio-environmental and political requirements usually prevailing at the local/metropolitan level.

Contents:

1. Introduction

Once upon a time, not so long ago, in many places and different countries, cities used to have a central square, a plaza mayor, where originally there was a market, a church, a castle, a place of meeting or encounter, where usually many functions and activities overlapped the ancient historical centre, concentrating the political, cultural, religious and economic power headquarters as well as business, commerce and services. There people could find almost everything, meet other people, date, make friends, do shopping, party, go to restaurants, pubs, watch a movie, a play in the theatre, etc. Then people used to say, 'let's go to the city', which later was substituted by 'let's go to the centre!' or even 'let's go downtown'.

Nowadays, mainly in medium-sized European cities or in small and medium-sized towns around the world perhaps the centre still endures. In larger urban areas inhabited by millions, as São Paulo, Rio de Janeiro, Buenos Aires, the centre almost vanishes through the multiplication and diffusion of activities and services throughout social space, surpassing the cities' boundaries, invading even rural areas with specialised centres of business, shopping, industrial services, popping up across the fields along the highways as mushrooms after the rain, whereas the old centre after working hours becomes rather empty of life activities. One might ask where is the centre? What happened to the old centre?

During the sixties Henri Lefebvre (1969) wrote the 'Right to the city' and identified the centre with simultaneity, encounters and parties and defined the urban as a quality made of quantities. This was maybe one of the briefest definitions of the city and the centre as a place of agglomeration and concentration of people, things, social, economic and political relations. Then, worried by proposals of housing estates and rational urbanism plans, Lefebvre (1969) denounced the loss of urbanity and the impoverishment of urban life, foreseeing the explosion of the historical city centre.

Globalisation, the Internet, mobile phones, social networks, the world reachable at one's fingertips. With new needs, fluidness, velocity, etc., flexible accumulation rendered the city centre old fashioned. Global time and flows demand intelligent buildings: everything and everyone must be connected. So centrality relations change as new administrative and political complex facilities are built outside the city centre. People now may do shopping in big malls, go to the movies in multiplexes and so on everywhere. Restaurants and shops multiply within global chains allowing people to buy the same products anywhere all over the world.

Pursuing Lefebvre's propositions (1969) can we still talk about the centre or centrality? Even today in a time marked by a growing intensity of interactions, which apparently bring everything and everyone together, allowing the exponentiation of simultaneities, insofar as material and immaterial interaction networks overlap pre-existing ones, deconstructing historically consecrated social relations together with urban hierarchies. The corollary is well-known (Offe, 1985; Harvey, 1990): productive activities and population distribution are reorganised in different scales, as places historically reputed as non-central are straightforwardly articulated to global flows, as for instance locating call-centres of major airlines in Dublin (Ireland), U.S. health service offices in India, or credit card customer services

headquarters in Uberlandia, state of Minas Gerais, in Brazil. The territorial split of decision-making, administration and production centres, results in an inter-scale intertwining of networks and places of different types and levels.

Taking into account the increasing fluidity of capital and the spatial mobility of labour along with relative freedom of spatial location for industrial facilities and productive activities, some could conclude that the contemporary urban dispersion would mean the end of cities as we used to know, or else, that this would represent a phase of expansion of the original urban agglomerations. Anyway this generalised urban dispersion allowing the formation of polycentric or a-centric urban structures defies traditional interpretations and paradigms of urban networks and centralities demanding a renewed effort of reflection.

Undoubtedly, changes in social space organisation, engendered by the third industrial revolution, have affected the spatial distribution of productive activities and of the population, challenging entrenched concepts of centre, centrality and urban network in different scales.

Territorial continuities and simultaneities give rise to temporal continuities and simultaneities, as urban agglomerations expand in disperse forms. Now the material and virtual articulations and interactions that exist in different scales become more important than the geographical location of a place. As a result, explanatory paradigms and classical conceptions of centre and centrality are questioned as political and spatial rearrangements (Harvey, 2001) lead to the formation of centres and centralities outside the urban agglomerations.

Has the idea of centre and centrality expired? Or has it acquired new meanings? Nowadays, without a shadow of a doubt it is worth questioning the classical notions of centrality, based on a simple dualism centre-periphery, where the periphery corresponds to places that are not central, or conceptions based on a hierarchy of central places (Christaller, 1966) so dear to neoclassical economists, as well as notions inspired by models and hierarchical schemes that seek to reduce complex reality to a typology of predefined standards.

Our purpose here is to discuss the changes in the notion of centrality in the context of contemporary urbanisation in Brazil. We depart from a theoretical approach on centrality, poles and position of centrality. Following that we present and discuss as a paradigmatic case Brazil's medium-sized metropolitan area Belo Horizonte, the capital of Minas Gerais state, in Southeast Brazil, which in recent years has experienced a growing spatial dispersion of economic activities, population and political-administrative facilities *vis-à-vis* its traditional intense centralisation of activities. On the one hand such processes are the outcome of decades of State intervention in economic infrastructure to support new productive activities. On the other hand, following the tracks opened by public investment, real estate is investing in business, tourism, culture and education. Alongside this, pressure increases on the periphery as land is claimed both for agricultural use and by large-scale mining companies with their private territorial policies. Such competition over social space contributes to redefining new centralities, blurring metropolitan boundaries mixing together public intervention, private urbanisation, economic activities and spontaneous occupation, with social and environmental impacts yet to be assessed. We end this essay with some perspectives on planning and some considerations on the consequences of this territorial dispersion of urbanisation.

2. Some differences on centres and poles

The idea of centre, of centrality, assumes the existence of an agglomeration, accessibility, concentration of jobs, wealth, knowledge, information, culture, innovation and political, legal, economic and social action. Fragmentation and spatial segmentation of different activities related to the general reproduction of society simultaneously generate complex, diversified and specialised places of work, dwelling, services, and management. Therefore today different specialised centralities spread territorially and organise into cooperative multipolar and polycentric networks of cooperation and competition (Limonad, 2002)

In his classes Milton Santos used to say with a small smile 'science is the art of studying the obvious'. A seemingly innocuous statement, so simple and banal, it could with no doubt lead the unwary to conclude that doing science is easy. The point is

that if science is the art of studying the obvious, the problem is how to bring forth the obvious beyond the appearance of the phenomenon and beyond what looks obvious. Very often the answer lies before our eyes and to see it we need to distrust it, to disregard it.

These first considerations are necessary, in part because of the theme that we propose to discuss, whose more or less obvious character can lead to various misconceptions of analysis and interpretation. Hence, better to define our object of reflection some issues have to be taken into account. First it is worth distinguishing that a centrality can be thought of in different scales, from the intra-urban scale to that of different urban networks, from the local to the global scale as Spósito stresses: "On the first level it is possible to focus on the different forms of expression of this centrality taking as reference the territory of the city or urban agglomeration, from its centre or centres. At the second level the analysis takes as reference the main city or urban agglomeration in relation to a city's network; this in turn can be seen in different scales and forms of articulation and configuration" (Spósito, 1998: 28, translation added).

Why is that? First, because when it comes to centralities, the first obviousness that usually appears is to identify the centre with a geometric, physical centrality, namely with a midpoint, an equilibrium point, a stable point in time and space. However, the centre, the centrality usually lacks a fixed, stable or immutable central geometric position (Claval, 2000).

The sheer idea of a physical geometric centrality assumes that there is an equal distance from different points, cartographically measurable and invariable in cartographic scales. However, this concept of geometric centrality loses meaning from a geographic perspective as proposed by Claval (2000), considering that centrality can be of a symbolic or economic nature. Taking off from a dialectical conception of social space, which neither identifies social space with Euclidean space, nor with the physical territory itself, the central or peripheral character of a place, its position of centrality in a territory can only be established and be understandable if we start from society and from the social relations (Monnet, 2002) that give meaning to this place.

The spatial-temporal centrality, so defined, is independent of its physical location, but manifests itself in different ways in different scales of analysis and reflection, remembering that a phenomenon's meaning and importance change according to the scale (Lacoste, 1982). Therefore in terms of spatial centrality there is no eccentricity as such because social space is relational and distinct from the physical territory itself.

A second issue to bear in mind is whether it is common to identify the centrality and centre with the original core of the urban agglomeration (Pesavento, 2007). This centre, this centrality is mutable over time; it moves as the city changes and grows. Thus, the centre may neither coincide with the geographical centre of a city nor with its original historic site (Spósito, 1991; Chalas, 2010).

Socio-spatial practices change, references change, techniques are developed. Thus the condition of centrality of a place changes either because of the development of the technical scientific milieu or due to planning actions.

The development of the technical scientific milieu, its transformation into the technical scientific informational milieu (Santos, 1994, 1996) besides its direct consequences over the productive processes, unfolds and reflects on the social organisation of space and the condition of centrality of different places. These outcomes pop up and become clear as the spatial mobility of population, of commodities, and the accessibility to goods and to collective consumption services change. In turn, planned and unplanned interventions in the configuration and social organisation of space may also change the condition of centrality of a place. "The urban centralities, appreciated according to key situations, are a result of decisions related to the political priorities of a time, such as the availability of funding and financial resources. They are also related to the legal acts prevailing at such a time, concerning rules of construction and heights of buildings. The urban centrality is also subject to real estate market rules, concurrence and disputes over urban land, especially real estate properties and buildings in the cities' central area, which are highly valued and expensive" (Pesavento, 2007, translation added).

Another usual misunderstanding is to take the centrality for a place of attraction, that is, for a pole. This leads us to a third point, which is the need

to differentiate centres and poles. Rather than what one would assume, centres and poles are not equivalent terms or mere synonyms. The difference is qualitative. The centre demands the existence of hegemony (Gramsci, 1996), presupposes a concentration of power and the exercise of power, which in turn presupposes the existence of vertical and horizontal relations of domination, of irradiation of activities. On the other hand the centrality would be, following Yves Lacoste (2003), the intrinsic property of what is in the centre or of what is considered the centre. From this perspective, the condition of centrality of a place in relation to a periphery can be understood as an expression of this place's power and hegemony wielded over other places, in different levels and scales.

Power may have political, economic and financial, or even sociocultural dimensions. The concentration of power in one place presupposes the hegemony of this place over other places, which materialises in the exercise of power over a territory, through its domination, subjecting to its own logic, the hegemonic logic, different forms of social appropriation.

Poles, in turn, can be defined and characterised as places concentrating activities and general conditions of production, without, however, necessarily concentrating or exerting power over the territory (Bordeau-Lepage, Huriot, 2005: 13). Accordingly, poles would be places concentrating general conditions of production and activities, without necessarily subordinating the surrounding territory or other places to their logic, although once in a while standing casually as foci of attraction and repulsion of activities and workers. Poles, therefore, may be understood as nodes of a network, establishing among them and other places horizontal interactions as well as creating activities, being often subordinated to a hegemonic logic without necessarily affecting the surrounding territory.

The development of activities around and at the poles tends to help the formation of clusters, of specialised enclaves in the territory, which have a specific differential centrality concerning each one's own specialisation and differences in relation to other centres and poles, which relate in a network, without necessarily impacting the surrounding development. In contrast to poles, centres have hegemonic features that enable them to impose their

own logic with distinctive impacts in different scales over previous socio-spatial relations.

Centres and poles have an intrinsic and relational spatiality because they are spatially defined in relation to other places and other points of a territory.

As a geographic centre is defined, a periphery is also defined *simultaneously*, as one's existence presupposes the other. However, a periphery may be subordinated to other centres or even may be central to other peripheral spaces

Then, how is it possible to talk about eccentricities? Which eccentricities are we considering? Certainly geographical ones, seen from a dialectical perspective regarding society and spatial practices. We speak metaphorically of eccentricities to refer to the changes in the relations of centrality, which are transposed from urban agglomerations to their peripheries or even to other peripheries. These eccentricities are expressions of changes and differences in the social organisation of space that are based on the increasing complexity of more general processes related to the reproduction of productive relations and to the deepening of the social and spatial division of labour.

Hence eccentric centralities emerge outside the urban agglomerations as a result of the diversity of material and immaterial economic flows demanding political and economic rearrangements within the territory. Fragmented, dispersed, extensive, diffuse agglomerations, the attributes to characterise such agglomeration changes multiply and juxtapose themselves with different meanings. The aftermath is a territorial displacement of different centralities towards peripheral areas that we call eccentricities, understanding them, at first glance, as a sign of change in the centre-periphery relation. Such growing complexity, diversification and fluidity of material and immaterial processes with the concomitant redefinition of centralities and centre-periphery relations are a distinctive feature of the contemporary social production of space.

3. Centres and peripheries in contemporary urbanisation

Yves Chalas (2010: 23) provides some support to clarify in detail our argument, understanding that

"the actual dimensions of contemporary urbanisation such as the generalisation of mobility, the unprecedented territorial extension of urbanity or the new relation the city keeps with nature, among others, are constitutive of the redefinition of the centre and the centrality in our cities." Whilst this was probably unintentional, his systematisation of fifteen features of contemporary urbanisation, many of them formerly exposed by other authors, helps us understand and reflect the contemporary character of the centre and urban centrality in different scales. Mostly we associate such features with Henri Lefebvre's simultaneity (1969), Milton Santos's (1996) networks, horizontalities and verticalities, Francesco Indovina's (1990, 2005) diffuse city and urban dispersion as well as Edward Soja's (1989) multipolarities and polycentrism.

Chalas' idea (2010) of urban aggregation leads us to Lefebvre's (1969) extension of the urban fabric or extensive urbanisation (Monte-Mór, 2003) that converges towards the idea of a space occupied in a scattered way by agglomerations of different sorts that establish different types of interactions at many scales and levels (Limonad, 2002, 2010), regardless of their size, dimension, position of centrality (Sheppard, 2002) and even of the accessibility and proximity levels among them.

Hence the capillarity of the transportation infrastructure or founding mobility as Chalas (2010) names it, must be considered together with the accessibility to common goods and services. Because if mobility presupposes movement, accessibility presupposes the spatial distribution of services, collective consumption facilities and infrastructures (supply, sewage, transportation and communication); both of them, mobility and accessibility, are fundamental to make a disperse occupation feasible, propitiating conditions for polycentrism and multipolarity to work.

The idea of polycentrism refers directly to Soja's (1989) propositions concerning the formation of multipolar centralities and to Santos' (1996) considerations on new forms of regionalisation working through vertical material and immaterial articulations and interactions among different places.

Indeed, according to Milton Santos (1994, 1996), if during Fordism, spatial continuities and simultaneities were unmistakably territorial, allowing horizontal interaction and regionalisation

processes to form continuous urban tissues along the transport and communication highways, all this changes with the conditions required by flexible accumulation (Harvey, 1990). The characteristics of that new pattern of accumulation have made it possible for the formerly territorial spatial continuities and simultaneities to become temporal. What does this mean? Now the times of simultaneity of diverse processes in different places of the territory prevail, enabling vertical interactions and regionalisation. Now regionalisation happens no longer only through spots, axis and 'oil stains', but also through spots and axis without necessarily affecting the surrounding territory (Limonad, 2007a). Each one has a prevailing urban morphology. The first has as a distinctive feature an intensifying urbanisation accompanied by the endless expansion of urban tissue forming huge metropolitan agglomerations such as Los Angeles, Mexico City and São Paulo. The latter in turn portrays an extensive urbanisation marked by the dispersion of population, uneven development and multiplying of peripheries, productive activities and services forming wide urban archipelagos encompassing former urban agglomerations, crop fields, natural reserves, mining exploitation, etc. (Limonad, 2007a).

Such vertical interactions and regionalisations would give birth to a particular kind of reticular tissues (Limonad, 2010) whose interstitial spaces would not necessarily present interactions with these network knots, forming a virtual topography of interactions of different types and intensity juxtaposed to and combined with the former urban organisation.

In parallel the increasing de-ruralising of the countryside world and its subsumption to the urban hegemony also interfere with the relations of centrality, affording the diffusion of disperse urbanisation and the multiplication of peripheral areas. It happens mainly due to the deterioration of former rural uses and to a wide range of issues, comprising rising pressure from real estate companies on rural properties besides agricultural business development, as well as the multiplication of monoculture green deserts and the expansion of mining exploitation. Therefore migrations from countryside to urban areas become an intrinsic part of a much wider process of economic development and social

change. On the other hand, alterations at the level of the general conditions of social reproduction, besides disrupting former productive activities, engender an increasing spatial dispersion of population, productive activities and services.

The corollary of such wide restructuring of productive processes is a growing blur of the rural-urban borders and differentiation overcoming the dualism between city and countryside (Limonad, Monte-Mór, 2012), side by side with a mounting fragmentation of the social and technical division of labour, with wide unfolds on previous centralities as we intend to present taking the Belo Horizonte Metropolitan Region as a paradigmatic case for our reflection.

4. A particular regard towards the periphery: A view from Belo Horizonte, Brazil

The Belo Horizonte Metropolitan Region, in southeast Brazil, is taken here as an example in order to illustrate the emergence of new centralities and to discuss the multiple ways contemporary urbanisation is changing from centralised socio-spatial arrangements towards urban dispersion. Belo Horizonte is the capital of Minas Gerais state and together with 33 other municipalities forms a Metropolitan Region with more than five million inhabitants, which makes it the third largest urban agglomeration in Brazil, after São Paulo and Rio de Janeiro (see Fig. 1).
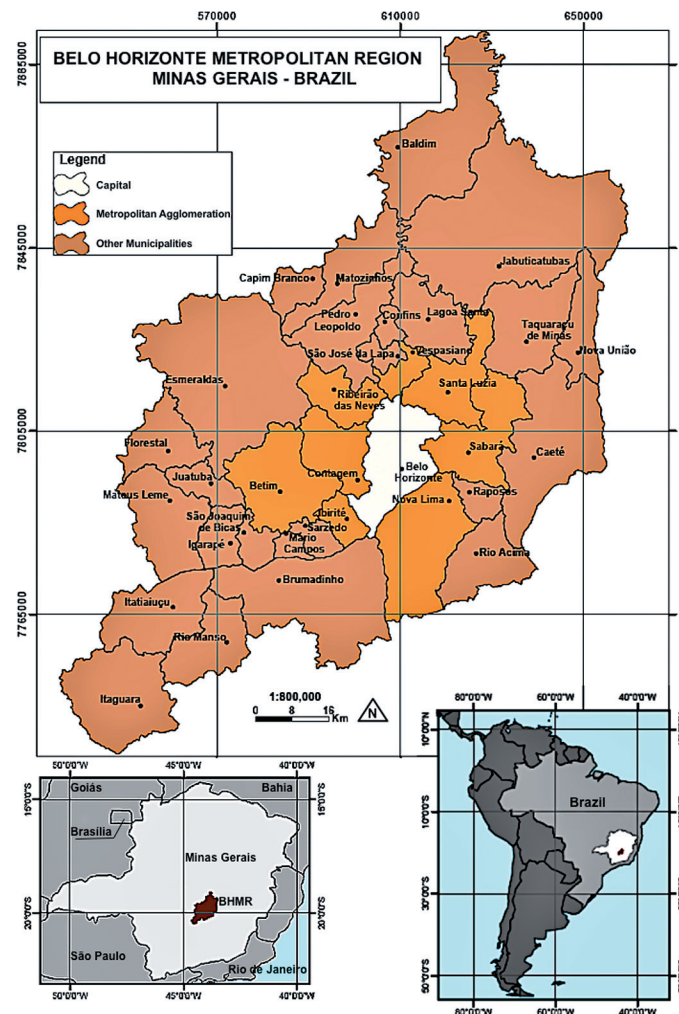

Fig. 1. Belo Horizonte Metropolitan Region, Minas Gerais state, Brazil, 2010

Source: UFMG/Pucminas/UEMG. 2011 Belo Horizonte Metropolitan Plan. Organised by the authors

The central municipality, Belo Horizonte, accounts for half of that population, and so far concentrates most of the investments in the region. It is also the most structured municipality in political and institutional terms, with longstanding planning experience. With few exceptions, the surrounding municipalities of the Belo Horizonte Metropolitan Region are very fragile in terms of their economic, institutional and financial performances.

Before presenting the Belo Horizonte Metropolitan Region and to set it up within the Brazilian Metropolitan Agglomerations universe, it is necessary to make a few remarks on some singularities of Brazilian urbanisation vis-à-vis that of other Latin American countries to avoid misunderstandings and misinterpretations.

4.1. Brazilian urbanisation
and changing Latin American patterns

Almost forty years ago many authors (Castells, 1973; Perlman, 1976; Portes, 1989) settled that Latin American cities, as well as those from developing or Third World countries, presented as general main features huge demographic and economic concentration in the country's capital or in a large metropolitan area with high demographic growth rates, accelerated urban growth, marked by heavy migrations from rural to the main urban area with the loss of local identities, deep social and spatial inequalities regarding access to sites and services, and with high levels of poverty, violence and unemployment which materialised in large slum areas. Such a generalisation and homogenisation of the features of a large ensemble of countries with different societies and realities no longer find a match in Brazil (Limonad, 2007b) and according to ECLAC (2000: 13) recent "trends suggest that over the past two decades most of the countries' urban systems have been steadily diversifying", making it harder to talk about a typical Latin American urbanisation pattern.

Nowadays Brazil presents an economic, demographic and urban territorial configuration distinctive from its Latin American neighbours. Brazil has a higher degree of territorial dispersion of population and economic activities with seventeen urban agglomerations with more than one million inhabitants (IBGE, 2010) scattered from North to South all over its territory: two large ones in Amazonia (Belém and Manaus) and two in the Middle West (Brasília and Goiânia) with more than 2 million inhabitants each, five in the Northeast (Salvador, Maceió, Recife, Natal, Fortaleza), three in the South (Curitiba, Florianópolis and Porto Alegre) and five in the Southeast (São Paulo, Rio de Janeiro, Belo Horizonte, Vitoria and Campinas) the most developed and richest region of Brazil (IBGE, 2010).

Indeed Brazilian urbanisation has extended all over its territory with a dispersion of economic activities and a low rate of demographic concentration in its two major primate metropolitan areas (less than 15% of the national population), whereas in other Latin American countries most primate city metropolitan areas, which are also the capital of the country, concentrate around 30% of the national population and the largest part of the economic activities (ECLAC, 2000). Argentina, Chile, Peru, Paraguay and Uruguay in South America, as well as Mexico, Costa Rica, Guatemala, Nicaragua, Panama and the Dominican Republic in North and Central America match this picture, as all of them still have a high primacy index above 2, defined as 'the ratio between the population of the primate city and the sum of the population of the next three largest cities' (ECLAC, 2000: 13; Portes, 1989: 8), meaning that in these countries the population of the largest urban area outnumbers at least the double of the sum of the next three large urban areas.

Besides the extensive urbanisation of the territory (Costa, Monte-Mór, 2002) and territorial dispersion, during the last twenty-five years, demographic growth rates have decreased along with an increasing life-span and declining fertility rates reversing the population pyramid (IBGE), urban growth slowed, rural-urban migration lessened (ECLAC, 2000: 19), interregional migrations diminished and almost all core cities of the Brazilian Metropolitan regions registered a low or negative outcome during the last census period (2000-2010). At the same time medium-sized cities outside the metropolitan regions presented a steady growth, showing similar problems to the larger urban areas. Thus, despite many social policies designed to reduce poverty, violence and unemployment and to improve social access to sites and services, there still prevail social and spatial inequalities but with lesser intensity than formerly.

The largest Brazilian urban agglomerations with more than one million inhabitants can be divided into three different categories. The first one encompasses the two largest urban agglomerations, São Paulo and Rio de Janeiro, both of them with more than 10 million inhabitants. The second group comprises an ensemble of eleven medium-sized metropolitan regions that in 2010 had between two and five million inhabitants (Brasília, Belo Horizonte, Porto Alegre, Recife, Fortaleza, Salvador, Curitiba, Campinas, Goiânia, Manaus, and Belém). Finally, the third group concentrates the small metropolitan agglomerations that in 2010 had between one and two million inhabitants. Besides these metropolitan agglomerations there is a set of agglomerations that despite receiving the metropolitan designation politically, do not meet at least three defining criteria (size, territorial primacy, conurbation of more than three municipal units, density, commuting rates) to be considered as such (4).

Hence Belo Horizonte may be considered as a paradigmatic example of the medium-sized set of Brazilian metropolitan regions, where a dispersion of several activities within the urban agglomeration may be observed. Such dispersion makes Brazilian Metropolitan Regions considerably different from other Latin and South American metropolitan regions as for instance Cordoba and Mendoza in Argentina, Montevideo in Uruguay, Medellin and Cali in Colombia or even Santiago de Chile, where the central core of the primate city prevails over the rest, centralising everything within the whole urban agglomeration (Portes, 1989: 8).

Like the Belo Horizonte Metropolitan Region, Brasília, Fortaleza, Salvador, Campinas and Goiânia are also experiencing changes in their relations of centrality inside and outside the urban agglomeration. Within the small-sized metropolitan agglomerations this can be observed also in Florianopolis, Vitória and at the Baixada Santista. Many of them, some more, others less, have moved administrative headquarters, services, business and housing facilities towards their own periphery forming new urban expansion axes and also new centralities.

4.2. The production of the Belo Horizonte Metropolitan Region

In the historical process of the production of urban space in the Belo Horizonte Metropolitan Region, State intervention associated with private investments play a major role producing abstract space, to use Henri Lefebvre's (1991) terms. Planned to become the new modern capital of the Minas Gerais state replacing Ouro Preto, the old historic capital linked to colonial mining interests, Belo Horizonte may be seen as a successful political and economic materialisation of a new centrality project carried out in a state split among several economic and political forces and groups at the turn of the 20th century. Its own construction suggests a detachment between a project of a new centrality and the historical centre of the Minas Gerais state, cutting off the coincidence between the colonial past centre and the emerging modern one. The construction of a new city as a means of territorial integration and political centralisation of power has occurred in many other places and times, as for instance the modernist national capital of Brasilia, built several decades later, in the 1960s.

During Belo Horizonte's early decades strong emphasis was placed through State investments on physical infrastructure to attract industrial capital and stimulate the new capital occupancy. Despite the initial efforts, it was only during the 1940s that Belo Horizonte would acquire some economic importance as major investments in the road system, electricity network, and industrial estates took place, mainly in the north and west of the city, going beyond its borders. These investments engendered the later metropolitan expansion, particularly in the 1950s, causing furthermore the emergence of other urban centralities, with different characteristics: industrial concentration in the western direction, and a more complex set of investments towards the north. These potential centralities emerging from the partnership of public and private investments have never actually competed with Belo Horizonte city centre, but were to become increasingly important tertiary centres within the metropolitan agglomeration some years later.

The first important urban expansion came along with a pioneer industrial estate created in the neighbouring municipality of Contagem, followed afterwards by others of the same kind, which triggered metropolitan growth and land development westwards, shaping the industrial city in lefebvrian terms, that is, with a close connection between urbanisation and the requirements of an industri-

al capital. Of course in the early days of peripheral capitalism, informality was already an important element of urban growth and expansion. Such a process generated urban sub-centres of local importance along the main metropolitan road system.

A second target of State investments in the same period was the Pampulha Lake complex, formed by leisure-cultural amenities and a high income housing development on the immediate northern border, which contributed to fuelling the real estate market in the surrounding areas, determining future metropolitan growth northwards. In later decades other State investments included some more or less successful attempts to establish new industrial estates in the 1970s and mainly large-scale social housing estates during the 1980s.

The 1970s were a period of industrial production, fast growth, political repression, concentration of wealth and power in the large urban areas of Brazil's southeast, intense population mobility and consolidation of nine metropolitan areas. In Belo Horizonte and other large urban areas, spatial expansion was the outcome of previous and new,

private and public investments, particularly related to industrial production and the property market (Costa, 1994).

The early option for a market oriented policy of access to land and housing resulted in a clear separation between formal urban growth in the city centre and a fragile urbanisation pattern in low value peripheral areas. The articulation between public and private capital invested in land and property, particularly popular housing, was an important element in the production of space: state intervention provided access and infrastructure to new areas, and private capital and landowners would produce developments for different household income levels.

Such a process resulted in a centre-periphery spatial configuration with a concentration of investments in infrastructure and services in the central area; where most economic activities, jobs and formal housing are located; where land and property values are higher, and where housing and other buildings were mostly (although not always, as there are also many central informal areas) produced through formal processes (Costa, 2012).

Source IBGE, Brazil Demographic Census, 2000 and 2010.
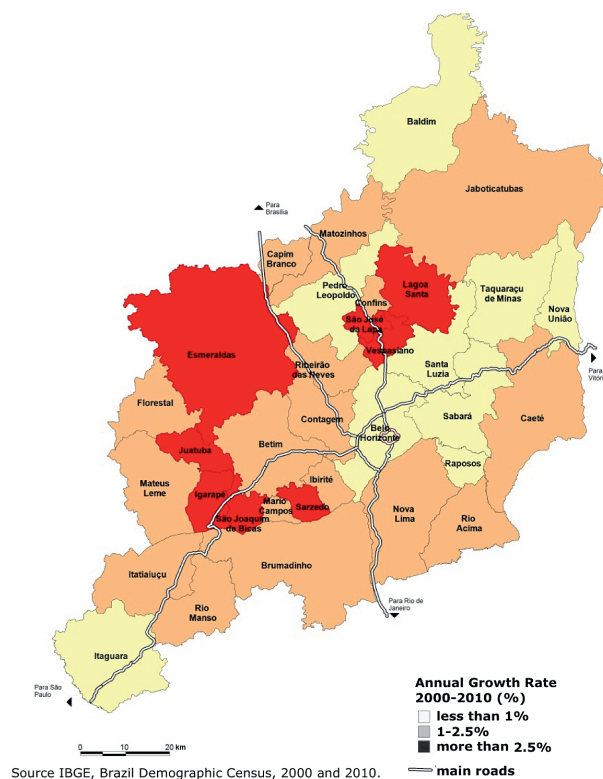
Fig. 2. Belo Horizonte Metropolitan Region Annual Growth Rates (2000-2010)

Source: UFMG/Pucminas/UEMG. 2011 Belo Horizonte Metropolitan Plan. Data: IBGE's Brazil Census 2000 and 2010 (<http://www.ibge.gov.br>)

The continuous spatial expansion of peripheral low-income developments typical of the fifties and seventies slowed down during the eighties and nineties, but a substantial part of the already developed areas became occupied. Empty areas (public areas included) were filled by precarious houses, plots were subdivided and built for rent or sale, rooms were rented, etc. All those survival strategies contributed to increasing densities and to redirecting urban social demands to the State, particularly at the local level (Costa, Mendonça, 2011). The higher urban growth rates in the surrounding northern metropolitan municipalities and decreasing population growth in Belo Horizonte express such processes (see Fig. 2).

On the other hand, intense occupation of peripheral areas has given rise to emerging popular centralities, vibrant areas of commercial activities and services directed to increasingly high-density popular developments and housing estates. In those centralities there is a clear imbalance between consumption and production activities, as people have to commute daily to work and to gain access to more complex tertiary activities, institutions and services.

Summing up, in Belo Horizonte the traditional process of production of the periphery was very intense during the seventies reaching several neighbouring municipalities of the metropolitan region. During the eighties the process slowed down, and from the nineties on, two overlapping tendencies could be identified: there was a widespread densification of the already urbanised areas, particularly of the popular peripheries as mentioned above, and a new territorial expansion wave with dispersion became very intense.

4.3. New trends towards an endless metropolitan region

Contemporary general processes have contributed to changing the former spatial organisation of the Belo Horizonte Metropolitan Region as can be observed in Fig. 3. Former southward Belo Horizonte residential developments – country houses, second residences associated with clubs, real-estate developments – were almost shyly and slowly produced outside its urban area, due to landownership con-

centration in mining. In the last two decades, such southward expansion was reinforced and increased rapidly as disperse urbanisation became widespread, following worldwide tendencies of disperse urbanisation. This southern expansion is characterised by fierce disputes over land, involving mining companies owning huge territories, environmental preservation activists, property developers and high income residents, a few traditional communities, water provision service companies, etc. A lifestyle associated with residential dispersion in luxury developments, combining security with proximity to nature, became a valued real state commodity and the southern metropolitan expansion stands as its most desired example (Costa et al., 2006). These are new peripheries, usually for the wealthy who can afford rising property prices and daily commuting in private cars, generating increasing public environmental and social costs as traffic jams increase and mobility lessens.

Along with this residential expansion another major shift may be noticed concerning the character of the northern expansion area, a traditional low-income area, which is under intense transformation, becoming modernised in large steps through state government investments aimed at making the metropolitan region competitive at national and international levels.

Nowadays State investments in economic infrastructure required by different fractions of capital have become more complex, redefining locations and economic centralities to make places more competitive in the knowledge economy. Availability of new technologies, qualified labour skills, proximity to research centres, availability of outsourcing partners, advanced services, and renewed urban and environmental regulations should be added to traditional requirements, such as infrastructure, tax incentives or adequate and cheap land.

Hence to accomplish these goals and to follow and comply, economically and spatially, with public actions and policies, many economic development strategies have been designed to stimulate private industrial and advanced service investments northwards.

Initially, the metropolitan airport in the municipality of Confins near the northern border was renovated, in conjunction with huge improvements in the highway system. Economic locational decisions

involved projects related to technological research poles, high technology and advanced industrial services estates, an aerospatial centre and university *campuses*. Some of them are operating; others are under construction, and a few remain at the draft stage. The ensemble of projects, including a new highway ring, which will alter the regions' accessibility, has triggered the mechanisms of increasing land prices, attracting property developments oriented towards an upscale market. The extent to which the low-income population will manage to stay where it is and benefit from new business and services attracted to the region, constituting new centralities and reinforcing traditional popular ones, is something as yet unknown. Or, conversely, will there be a widespread process of gentrification in part of these areas transforming radically the socio spatial structure, the spatial distribution of population with the peripheral areas moving farther away? Such trends of the real-estate market are shown in Fig. 3.
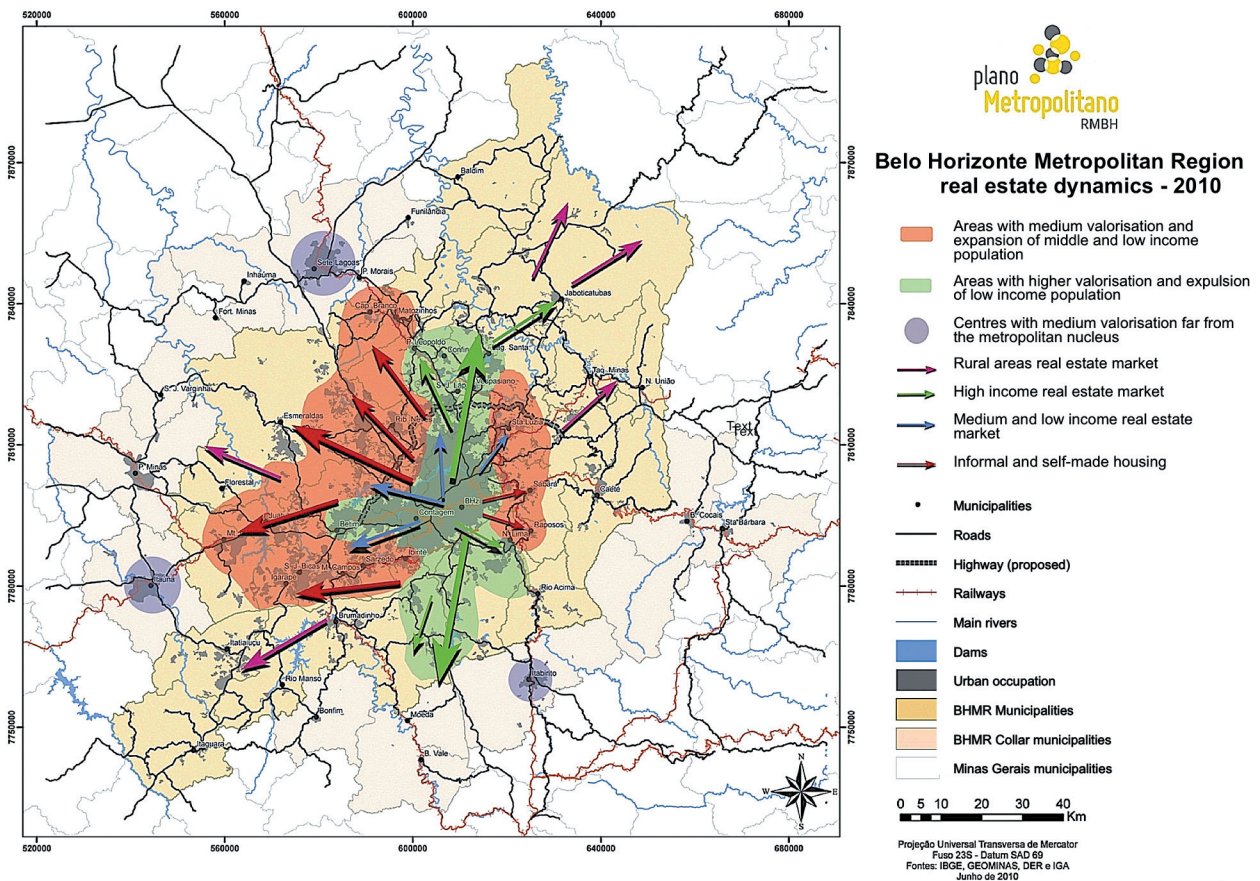

Fig. 3. Belo Horizonte Metropolitan Region Real Estate Dynamics (June -2010)

Source: UFMG/Pucminas/UEMG. 2011 Belo Horizonte Metropolitan Plan

The second major change was the establishment, a few years ago, of the new Administrative City Centre on the northern border of Belo Horizonte, an impressive Oscar Niemeyer project composed of the provincial state government palace and two major towers housing all state secretaries and institutions, to where 16,000 people commute daily. Such new areas may be seen as a simulacrum of centrality, as they lack the simultaneity, the encounter and the party as Monte-Mór (2013) remarks following Lefebvre's approach. Indeed after the distinction made at the beginning, such areas may be seen as poles with political, administrative or economic functions, bearers of incomplete centralities inasmuch as they represent either political or economic centralities, without being (yet) a real

centrality in lefebvrian terms, as discussed above, comprising the heterogeneity and diversity of everyday life associated with economic, political, cultural and social uses of the place.

The north- and southwards expansion presents a growing complexity combining different land uses and occupation comprising enterprises and firms of distinctive kinds, sizes and scales, associating housing development with shopping malls, convention and leisure centres, environmental preservation areas, and a number of other activities. While the propaganda of the southern areas relies very much on offering a controlled centrality where people will presumably find whatever they need, without having to go to the city centre, the northern area is advertised as a new place with a better quality of life and accessibility to the metropolitan region.

To sum up, the ensemble of projects decided for the region is causing a major urban transformation within the fringes of the Belo Horizonte Metropolitan Region, generating a widespread increase in land and real estate prices. As in previous decades, property developments were attracted to the northern expansion, following the economic strategy, but some new elements emerged: first, new social housing estate projects attracted private capital as an unfolding of new federal funding resources for public housing, most of it set in the northern expansion, contributing to heightening densities increasing the demand for infrastructure, job opportunities, qualifications and education. The outstanding demographic growth in the municipalities of the northern periphery reflects all these processes. Their population, mainly low-income, commutes daily in order to work and to supply other urban needs, whilst the home local governments remain financially and politically unable to meet their residents' basic social demands. The fear of eviction caused by a potential gentrification of the area is a major concern of the poor and low-income residents. Many social movements are now organised around land regularisation policies, seen as the major public response to the problem (Costa, Mendonça, 2011).

Furthermore there is evidence of fragmentation and dispersion of the urban expansion through residential developments, productive services of the knowledge economy, shopping and convention centres, complexes of major health and education services, cultural and tourist developments, which will probably be followed, if the prevailing landownership regime allows, by all sorts of formal and informal popular settlements accompanying job and income opportunities. To what extent new centralities will arise and bring to the periphery most attributes of the centre will depend on which social agents and interest will prevail in the urbanisation process. In any case the territorial tendency points to an edgeless city or metropolitan region, where a fierce dispute over land uses – residential, productive, services, agricultural, mining, preservation, vacant land stock, etc. – tends to replace the increasingly weak opposition between urban and rural areas.

As a contemporary pattern of territorial arrangement, the dispersion of urbanisation brings about new challenges and also new possibilities at the political level, both for local governments faced with different forms of land developments and demands in terms of provision of activities and services – of centralities – and for metropolitan forms of political articulation and planning. As there is no metropolitan level of political power, but a metropolitan governance structure in the process of construction, state responses are still ambiguous. At the regional scale, development strategies refer mainly to investments required to make the Belo Horizonte Metropolitan Region competitive at the national and global level. However, within the metropolitan scale local strategies tend to reinforce competition and differentiation among municipalities rather than negotiate compensation or solidarity mechanisms.

The general outcome regarding social needs is that, like in previous similar circumstances, there has been a huge volume of investments improving former conditions, mainly economic infrastructure associated with accessibility, a major requirement both for capital and labour force reproduction (Costa, Mendonça, 2011). Nevertheless, these investments have, without a doubt, contributed to reinforce the production of abstract space, understood here according to Henri Lefebvre (1991) as the space that carries out and fulfils the State's needs as well as the requirements of capital reproduction, subsuming any possibilities of its social appropriation as use value.

Indeed development strategies are important to allow a technological shift in the economy, from

a conventional productive structure to the so-called learning economy, based on high technology, productive services, education, etc. But in Brazil, it is usually very rare and difficult for economic development to translate into social improvements and the ensemble of projects already decided for the Belo Horizonte Metropolitan Region shows little innovation or improvements (so far) on social issues, continuing to rely heavily on mining and metallurgy, which are sectors that require heavy State regulation in terms of environmental and territorial policies. Until now these investments have been replicating longstanding processes implemented for several decades barely bringing forth innovations concerning the production of space and the role of social agents responsible for them.

5.   From edgeless cities towards the right to the city – final comments

The example of the Belo Horizonte Metropolitan Region's scattered disperse urban expansion overlapping a more traditional centre-periphery metropolitan pattern encompasses a wide range of processes. Most of them are associated with providing general conditions of production, with disputes over space, and with the adoption of new technologies, resulting in the compression of space and time (Harvey, 1990), and the extension of urban conditions of reproduction to the whole territory (Monte-Mór, 2003). Such trends can be found in several places and have been analysed by many authors.

As far as metropolitan planning and governance are concerned, recent experience in the Belo Horizonte Metropolitan Region led to a metropolitan plan (PDDI – Integrated Development Master Plan) being developed within the Federal University of Minas Gerais together with other universities in close cooperation with the state government and relying on the strong participation of organised social groups. The plan (UFMG, 2011) adopted an innovative methodological approach combining thematic and hopefully interdisciplinary analyses of the metropolitan territory with a participatory discussion process by means of several workshops and seminars leading to the design of thirty metropolitan policies in many areas. Territorial restructuring

is one of main dimensions of the plan and the creation and reinforcement of a network of centralities of different scales is the key element of the proposal, as an attempt to reverse the still strong centre-periphery configuration, bringing to peripheral areas the heterogeneity of uses of the centre associated with the demands and services of the urbanity of everyday life. The plan requires more details and projects to be implemented, but it can be seen as an empowering experience for those who have participated in it. The extent to which such a process may contribute to producing social change is still an open question.

Meanwhile, it remains unknown which will be the final urban form. For now, the outcome of these processes is a fluid urban form that presents a disjunction between the historic centre and the urban centrality with a diversification and functional fragmentation of the centrality in different sites across the territory. The urban landscape becomes a quilt cut by empty natural spaces and different agglomerations bringing forth the dialectical character of the contemporary production of urban space, which is marked by the fluid separation between the city and the non-city, the urbanisation of nature and the cities' ruralisation (Limonad, 2010; Limonad, Monte-Mór, 2012).

Indeed the idea of modern country life far from the dangers and challenges of the city centres is rather powerful and very useful for the real estate business. It is also quite dangerous as it jeopardises the ideas of urbanity, heterogeneity, encounters with others, with the different, usually associated with urban living and the very notion of centrality proposed by Lefebvre (1969). Thus in consequence the old urbanity becomes lost leading to an emptiness of the centrality that is the centrality as the locus of encounter, of the promiscuity of uses, of the simultaneity and the party. The state and capital in general know quite well their own needs and how to satisfy them through the production of an abstract space, which increasingly subsumes the possibilities of social appropriation, thus the production of a fairer and more egalitarian space rests upon social movements, on social struggles on citizenship and on everyday social practices, because as we produce in daily life the space we wish and need, we may slowly change a little social life as well as social space.

Notes

(1) An earlier version of this article was presented at the AESOP-ACSP Joint Conference, in Dublin on July 2013.

(2) Dr. Ester Limonad is a laureate in 2007 with the Milton Santos Award of ANPUR (National Association of Graduate Programmes and Research in Urban and Regional Planning) in the category of best scientific article. Postdoctoral Fellow in Human Geography at the University of Barcelona (2006), PhD in Urban and Regional Planning at the University of São Paulo (1996), Currently she is Professor at the Department of Geography of the Fluminense Federal University, ANPUR representative at the Global Planning Education Network (GPEAN), Senior Researcher of Brazil National Research Council (CNPq), Member of the International Geocrítica Network, Member of the Editorial Board of several scientific journals, ad-hoc consultant of several Scientific Councils. At ANPUR she was member of the Audit Committee (2009-2011), National Executive Secretary (2011) and Chair President (2011-2013). Coordinator of several research projects leading to the publication of journal articles, book chapters and editing, conference papers and lectures on issues related to urban and environmental politics and planning, urbanisation and public policies. She was visiting Professor at the National University of Colombia – Medellin and at other Brazilian Federal Universities, Supervisor of Master and Doctor dissertations within the Graduate Program in Geography. Recent research projects are on "New urban destines: a social cartography of great economic agents".

(3) Dr. Heloisa Costa is an architect, with an M.Phil. in Urban Planning (Architectural Association, London) and a PhD. in Demography (UFMG, Brazil). She was Visiting Scholar at the Department of Geography, UC Berkeley (1997/8). She is presently Professor at the Department of Geography of the Federal University of Minas Gerais, Belo Horizonte, Brazil since 1993. Has coordinated and participated in several research projects leading to publication of journal articles, book chapters and editing, conference papers and lectures on issues related to urban and environmental politics and planning, housing and public policies. She supervises dissertations and thesis within the Graduate Program in Geography and holds an Urban and Regional Planning Productivity Research Grant by CNPq. Recent research projects include: New peripheries: politics and urban and environmental regulation in the production of metropolitan space; SWITCH project – Sustainable Water Management Improves Tomorrow's Cities Health. Former Chair President of ANPUR – National Association of Graduate Programmes and Research in Urban and Regional Planning during the period 2003-2005, ANPUR's representative at the Coordinating Committee of GPEAN – Global Planning Education Associations Network, and at the National Council of Cities. Member of the Editorial Board of several journals. She was in the coordination team of the Integrated Master Plan of the Metropolitan Region of Belo Horizonte.

(4) Before 1988, during the Military Dictatorship, only the Brazilian federal government could create Metropolitan Regions and in 1973-74 nine metropolitan regions were defined (São Paulo, Rio de Janeiro, Belo Horizonte, Salvador, Porto Alegre, Recife, Fortaleza, Belém). After the 1988 Constitution each state government could create its metropolitan regions with its own political and technical parameters. The outcome was an outburst of metropolitan regions with populations varying from less than a hundred thousand inhabitants to more than 18 million inhabitants. In a former paper Limonad (2007b) selected seventeen metropolitan regions among the current sixty-eight using the OECD (2006: 34) "methodology to gather and analyse metropolitan data … based on four criteria. The first criterion is based on population size and a threshold of 1.5 million people is set to consider the region as metropolitan. Second, the density of population should exceed a critical value set at 150 people per km^2 … Third, it is also fundamental that these regions with large and dense populations constituting urban areas represent a contained labour market. In order to define labour markets, commuting flows are used to calculate net migration rates

…. Hence, metro-regions among predominantly urban areas (large and densely populated) are those for which the net commuting rate does not exceed 10% of the resident population. The fourth criterion includes cities with less than 1.5 million people, but that account for more than 20% of their national population", adapting the fourth criterion to important cities in small states of the federation.

Acknowledgements

References

Bordeau-Lepage, L. and Huriot, J., 2005: On poles and centres: cities in the French style. In: *Urban Public Economics Review*, No. 3, pp. 12–35.

Castells, M., 1973: Imperialismo y urbanización en América Latina (Imperialism and urbanisation in Latin America – in Spanish), Barcelona: Gustavo Gili.

Chalas, Y., 2010: Centre, centralité et polycentrisme dans l'urbanisation contemporaine (Centre, centrality and polycentrism within contemporary urbanisation – in French). In: *Urbia. Les Cahiers du développement urbain durable*, No. 11, Université de Lausanne, pp. 23–41; available from: http://www.unil.ch/webdav/site/ouvdd/shared/URBIA/Urbia_11/Yves_chalas.pdf; DoA: 2 May 2013.

Christaller, W., 1966: Central places in Southern Germany, Englewood Cliffs: Prentice-Hall.

Claval, P., 2000: Réflexions sur la centralité (Reflections on centrality– in French). In: *Cahiers de Geographie du Quebec*, Vol. 44, No. 123, pp. 285–301, available from: http://www.erudit.org/revue/cgq/2000/v44/n123/022922ar.pdf; DoA: 2 May 2013.

Costa, H., 1994: Habitação e produção do espaço em Belo Horizonte (Housing and production of space in Belo Horizonte – in Portuguese). In: Monte-Mór, R.

editor, *Belo Horizonte: espaços e tempos em construção*, Belo Horizonte: Cedeplar/PBH.

Costa, H. , Costa, G., Mendonça, J. and Monte-Mór, R.L. editors, 2006: Novas periferias metropolitanas. A expansão metropolitana em Belo Horizonte: dinâmica e especificidades no Eixo Sul (New metropolitan peripheries. The metropolitan expansion in Belo Horizonte: dynamics and specificities in the South Axis. – in Portuguese), Belo Horizonte: Editora C/ Arte.

Costa, H., 2012: Metropolitan planning and urban politics in a context of disperse urbanization: notes from Belo Horizonte, Brazil. Paper presented at the 15th International Planning History Society Conference "Cities, nations and regions in planning history", University of São Paulo, Brazil.

Costa, H. and Mendonça, J., 2011: Development strategies and urban planning: are they connected? Comments from the Metropolitan Region of Belo Horizonte, Brazil. Paper presented at the EADI/DSA Conference "Rethinking development in an age of scarcity and uncertainty. New values, voices and alliances for increased resilience", University of York, UK.

Costa, H. and Monte-Mór, R.L., 2002: Urbanization and environment, In: Hogan, D. editor, *Population and environment in Brazil*, Campinas: CNPD-ABEP-NEPO, pp. 127–146; available from: http://www.abep.nepo.unicamp.br/docs/outraspub/Rio10/rio10p125a146.pdf; DoA: 21 October 2013.

ECLAC (United Nations Economic Commission on Latin America and the Caribbean), 2000: From rapid urbanization to the consolidation of human settlements in Latin America and the Caribbean: a territorial perspective, Santiago de Chile: ECLAC; available from: http://www.eclac.org/publicaciones/xml/1/5071/G-2116-i.pdf; DoA: 21 October 2013.

Gramsci, A., 1996: Note sul Machiavelli, sulla politica e sullo Stato moderno (Notes on Machiavelli, politics and the modern State – in Italian), Roma: Editori Riuniti; available from: http://www.liberliber.it/mediateca/libri/g/gramsci/note_sul_machiavelli/pdf/note_s_p.pdf; DoA: 13 May 2013.

Harvey, D., 1990: The condition of postmodernity. An enquiry into the origins of cultural change, Oxford: Basil Blackwell.

Harvey, D., 2001: Spaces of capital. Towards a critical Geography, Edinburgh: Edinburgh University Press.

IBGE, 2010: 2010 Population census, Rio de Janeiro: IBGE; available from: http://www.ibge.gov.br/english/

estatistica/populacao/censo2010/default.shtm; DoA: 21 October 2013.

Indovina, F., 1990: La cittá difusa (The diffuse city – in Italian), Venecia: DAEST.

Indovina, F., 2005: La nuova dimensione urbana: L'arcipelago metropolitano (The new urban dimension: the metropolitan archipelago – in Italian). In: Marceloni, M. *Questioni della città contemporânea*, Milano: FrancoAngeli.

Lacoste, Y., 1982: La géographie, ça sert, d'abord, à faire la guerre (Geography is primarily for waging war – in French), Paris: Éditions Maspero, Petite Collection Maspero, No. 165.

Lacoste, Y., 2003: De la géopolitique aux paysages (Geopolitical landscapes – in French), Paris: Ed. Armand Colin.

Lefebvre, H., 1969: O direito à cidade (The right to the city – in Portuguese), São Paulo: Documentos.

Lefebvre, H., 1991: The production of space, Oxford: Basil Blackwell.

Limonad, E., 2002: Multipolar urbanisation patterns in south Rio de Janeiro: from competition or cooperation to coopetition. In: Markowski, T. and Marszał, T. editors, *Polycentric metropolitan regions – new concepts and experiences*, Warsaw: Polish Academy of Sciences – Committee for space economy and regional planning, Vol. 11, pp. 143–158.

Limonad, E., 2007a: No todo acaba en Los Angeles ¿un nuevo paradigma: entre la urbanización concentrada y dispersa? (Los Angeles: the final horizon? A new paradigm between the concentrated and disperse urbanisation – in Spanish). In: *Biblio3W*, Vol. 12, No. 734, available from: http://www.ub.es/geocrit/b3w-734.htm, DoA: 2 May 2013.

Limonad, E., 2007b: Nunca fomos tão metropolitanos! (More metropolitan than ever – in Portuguese) In: Reis, N.G. and Tanaka, M.S. editors, *Brasil – Estudos sobre dispersão urbana*, São Paulo: Via das Artes – FAPESP, V. 1, p. 183–212.

Limonad, E., 2008: América Latina mais além da urbanização dependente? (Latin America far beyond the dependent urbanisation? – in Portuguese). In: Oliveira, M.P., Coelho, M.C.N. and Corrêa, A.M. editors, *Espacialidades contemporâneas: o Brasil, a América Latina e o mundo*, São Paulo: Lamparina, pp. 75–93.

Limonad, E., 2010: Regiões reticulares: breves considerações para compreender as novas formas urbanas (Reticular regions: brief considerations on new urban forms – in Portuguese). In: *Cidades*, Vol. 7, No. 11, pp. 163–179.

Limonad, E. and Monte-Mór, R., 2012: Por el derecho a la ciudad, entre lo rural y lo urbano (The right to the city, between the rural and the urban – in Spanish). In: *Scripta Nova*, Vol. 16, No. 418–25; available from: http://www.ub.edu/geocrit/sn/sn-418-sn-418-25.htm, DoA: 2 May 2013.

Monnet, J., 2000: Les dimensions symboliques de la centralité (The symbolic dimensions of centrality – in French). In: *Cahiers de Géographie du Québec,* Vol. 44, No. 123, pp. 399–418; available from: http://www.erudit.org/revue/cgq/2000/v44/n123/022927ar.pdf, DoA: 2 May 2013.

Monnet, J., 2002: Centre et périphérie au Mexique : dialectiques et dynamiques géographiques à plusieurs échelles (Centre and periphery in Mexico: geographic dialectics and dynamics in several scales – in French), available from: http://halshs.archives-ouvertes.fr/docs/00/05/18/43/PDF/ut1-monnet.pdf, DoA: 20 May 2013.

Monte-Mór, R., 2003: Outras fronteiras: novas espacialidades na urbanização brasileira (Other boundaries: new spatialities in Brazilian urbanisation – in Portuguese). In: Castriota, L. editor, *Urbanização brasileira: redescobertas*, Belo Horizonte: Editora C/Arte.

Monte-Mór, R.L., 2013: Notas para um debate sobre o conceito contemporâneo de centralidade (Notes on the contemporary concept of centrality – in Portuguese). Paper presented in the panel: Urbano, cidade e espaço (e suas interconexões) no pensamento de Henri Lefebvre: reflexões sobre a aproximação entre teoria e prática urbana, Recife: XV Encontro Nacional da ANPUR, Brazil.

OECD – Organisation for Economic Co-operation and Development, 2006: Competitive Cities in the Global Economy, Paris: OECD.

Offe, C., 1985: Disorganized capitalism, Cambridge: MIT Press.

Oliveira Jr., G., 2008: Redefinição da centralidade urbana em cidades médias (Urban centrality redefinition in medium-sized cities – in Portuguese). In: *Sociedade e Natureza,* Vol. 20, No. 1; available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1982-45132008000100014&lng=pt&nrm=iso, DoA: 16 May 2013. DOI: http://dx.doi.org/10.1590/S1982-45132008000100014.

Perlman, J.E., 1976: The myth of marginality, urban poverty and politics in Rio de Janeiro, Los Angeles: University of California.

Pesavento, S., 2007: História, memória e centralidade urbana (History, memory and urban centrality – in Por-

tuguese), available from: http://nuevomundo.revues.org/3212, DoA: 15 May 2013.

Portes, A., 1989: Latin American urbanization during the years of the crisis. In: *Latin American Research Review*, Vol. 24, No. 3, pp. 7–44; available from: http://www.jstor.org/stable/2503697, DoA: 20 November 2013.

Santos, M., 1994: Técnica, espaço, tempo (Technic, space, time – in Portuguese), São Paulo: Hucitec.

Santos, M., 1996: A natureza do espaço (The nature of space – in Portuguese), São Paulo: Loyola.

Sheppard, E., 2002: The spaces and times of globalization: place, scales, works and positionality. In: *Economic Geography*, Vol. 78, No. 3, pp. 307–330.

Soja, E., 1989: Post-modern geographies, London/New York: Verso.

Spósito, M.E., 1991: O centro e as formas de expressão da centralidade urbana (The centre and the expression forms of urban centrality – in Portuguese). In: *Revista de Geografia,* Vol. 10, No. 1, pp.1–18, UNESP.

Spósito, M.E., 1998: A gestão do território e as diferentes escalas da centralidade urbana (Territorial management and the several scales of urban centrality – in Portuguese). In: *Território*, Vol. 3, No. 4, pp. 27–37.

UFMG/Pucminas/UEMG, 2011: PDDI – Plano Diretor de Desenvolvimento Integrado da Região Metropolitana de Belo Horizonte, Sumário Executivo, Belo Horizonte.