

An Urban Geography of Globalisation: New corporate centralities in the age of hyper connectivity

Introduction

How is Globalisation changing the form and structure of cities today?

Deceptively simple, this question presents us with a number of methodological challenges and unanswered theoretical problems. What is globalization? Can we define a series of distinctive new processes constituting a coherent and logical outline? Second, how do these processes influence the form and the shape of cities today? Is there a new 'global city', recognisable by distinctive spatial features, or are 'new global spaces' simply a result of long standing processes already at play?

The new flexible and dispersed modes of production (post-Fordism) have triggered an unprecedented intensification of trans-national financial flows in the form of Foreign Direct Investment (FDI), triggered by the incursion of large trans-national companies into new markets. The dispersal of production was accompanied by the concentration of business management in nodes of command located in cities that offer comparative advantages related to their geographic position, their spatial make-up and their socio-economic composition. Some have chosen to call these nodes of command 'global cities' (Sassen, 1991 for example).

Headquarters, offices and plants of the same transnational company can be located in different cities and even in different countries. However, managerial activities of the highest level tend to concentrate in a few cities that offer the necessary environment for business and life standards for a commanding group of people, both in developed and developing countries. TNCs need nodes of command in different economic areas, located in cities that offer comparative advantages, such as connections to big consumer markets, skilled labour force and infrastructure for the carrying out of command activities. This means, primarily, connectivity to other nodes in the global network.

Furthermore, cities need to have a strong identity _often translated in spectacular architectural form_, in order to stand out and be recognised as centres of command.

Command activities as agents of urban transformation

Command activities include top managerial tasks performed inside headquarters and main offices. They also include Advanced Producer Services (APS), the services responsible for the organization, management, distribution and securitization of international capitals. Banking, Law, Consultancy, Accountancy, Insurance and Advertising are generally described as the main APS (Taylor, 2002), but the list may also include other high-level services, such as communication technology, business management, etc.

The progression of transnational corporations around the world has triggered the geographical expansion and increased the complexity of business operations. Command functions and APS are a central element in the make-up of the global city category, as described by Sassen (1991, Sassen, 1994). They are knowledge-based activities that articulate the intensive flows generated by an increasingly interdependent world economy. This means that Advanced Producer Services are among the most globally connected activities and they generate and manage an enormous amount of exchanges of all kinds: people, money, information, etc.

Some cities have undergone a feverish process of adjustment and renewal, generally engaged in partnerships with the private sector, struggling to become centres of command and attract foreign direct investment. This is the result of a complex combination of macro-

economic factors, including increasing reduction of investment capacity by national and local governments. However, it is also the outcome of the perception that cities had to 'compete' with each other in order to attract investment. In reality, 'city competition' is nothing more than the product of the generalisation and dispersion of the capitalist mode of production around the world and the need to 'adapt' spaces to the new economic requirements.

In order to keep up with the need to invest (and attract investment), local governments have sought 'partnerships' with the private sector and have adopted strategic planning as a tool for development. However, inflated competition between cities and regions may also have led to the growth of public expenditure in transportation, communication infrastructures and the establishment of new top locations for business, in detriment of investment in such areas as education and health, as indicated in by recent studies (Figlio and Blonigen, 1999).

Despite the generalisation of capitalist mode of production related to the expansion of TNCs and the resulting changes in production and labour, many ask how far urban spatial transformation is actually related to globalizing forces and whether there is indeed anything like a new 'global city', with distinctive, recognisable and common spatial and structural features. Theoretically, since globalisation is (as the name says) 'global', there should be similarities in form and structure in globalizing cities in developed and developing countries alike, because agents of economic global processes are mainly the same (TNCs and Advanced Producer Service firms).

However, despite the idea of a shrinking State, societal and economic processes continue to be largely shaped by States. Schiffer (1997) points out that, although international companies have pursued a greater sophistication in the collection of comparative structural advantages offered by 'global cities', such predicaments could be only created or organised under the regime of a national state. They could not, for the most part, be merely introduced by foreign investors.

Whatever the economic power represented by TNCs, the main agent of urban transformation is typically the public sector, either in partnership or in association with the private sector. These associations and partnerships might go more or less unchecked by civil society, according to local conditions of governance and accountability. The public sector is, as a rule, the only agent able to carry out large structural urban projects, even when in close association with private agents.

Another check on the 'global city convergence' hypothesis is that private agents in partnership with the public sector are, more often than not, *national* agents (banks, pension funds or large real estate developers) and not international ones, although international funding and development are becoming more common than before.

Nevertheless, the processes to what all afore mentioned agents are responding to are twofold: on one hand, urban processes are persistent and do not change overnight. New forms of organisation of production and the territory have to deal with the pre-existing fabric of the city and with long-standing societal processes. For Marcuse and van Kempen (1997), for instance, since command activities of the tertiary sector amount to a very small fraction of all employment in any city, including the most global ones, their impact on spatial patterns is only one of a great variety of impacts, which are all moulded by the pre-existing fabric of the city. For Beauregard & Haila, "*in order to speak of the contemporary city as post-modern or post-Fordist without attaching a plethora [an excess] of qualifications, one would have to represent it as a sharp break from the past. Clearly, this is not the case*"(2000). For the authors, the capitalist logic is still relevant and underlines urban development. The forces that shape contemporary cities _decentralization, agglomeration, property market dynamics _ are associated with the Modern or Fordist city and the form of cities is a result overlapping historical events and forces. "Past trends continue, prior investments and social commitments slow the pace of spatial change and the logic of capitalism (despite recent transformations) operates within property market to reinforce the forms and relations of development" (Beauregard and Haila, 2000).

However, by its own nature, globalisation is now impacting cities that were previously not under the 'capitalist logic' (if this logic has ever existed in its pure form). Cities in China, Russia, and Eastern Europe now have to respond to market forces in a more blunt way. New modes of production are also affecting cities where capitalism was either not very developed (e.g. cities in Asia and Latin America) or constrained by State regulations. Cities in different geographical areas are now experimenting rapid processes of change and are only now incorporating urban land as a tradable commodity. Besides, capitalist development is not globally synchronic, and many cities in developing countries are entering the post-Fordist economy without having fully developed the Fordist mode of production.

Globalisation is, to all effects, a diffusion of the capitalist mode of production to places where it was either not fully developed or restrained, resulting in deeper commoditisation of urban space. Fordist and Post-Fordist modes of production are impacting cities in different locations in different ways, sometimes simultaneously. Global actors are increasingly more present in the local arena and the real estate market is increasingly more delocalized. This does not mean that urban regulations, political restraints, local development policies and a myriad of other place-specific factors do not interfere with transformation processes in different cities. It means, however, that cities are now more than ever exposed to a similar logic, which might result in similar spatial developments.

Our hypothesis is that processes related to globalisation have resulted in convergent transformation in urban form and structure in globalizing cities in very different geographical areas. However, convergent transformation emerges from very particular historic and social processes in each city. Old and new phenomena are in constant interplay and spatial outcomes may be very different at first sight. The impacts caused by globalizing forces may be more clearly perceived only in certain areas of the city and not at all in others. The dichotomy between globalizing and non-globalizing spaces may contribute for social and spatial division and polarisation in cities, because they reflect social division and polarisation in the form of differences in how different groups of people integrate and benefit from the new processes.

The empirical evidence

In order to answer these questions, we carry on an analysis of the location choices of command activities (transnational corporations and advanced producer services headquarters) in two case-studies: The Randstad-Holland and São Paulo.

Both advanced producer firms and TNCs headquarters rely on new spatial requirements to locate. These requirements are particularly related to connectivity and communication infrastructure, among other requirements, and therefore have the potential to trigger urban transformation. The analysis of locational patterns of transnational firms' headquarters, together of the analysis of spatial characteristics and structural advantages offered by certain places in globalising cities, may give us a clue on how global forces are changing certain areas of 'global' cities today. This change concerns particularly the emergence of new 'corporate centralities' in non-central places, connected to heavy transportation and communication infrastructure sometimes not available in 'old centralities'.

Particular places in cities must be studied in order to understand what are the specific spatial features and urban landscapes promoted by global actors. It is also important to understand the characteristics of urban places sought by global actors in order to locate complex command functions and the role of the public sector in promoting significant changes in urban structures in order to accommodate those demands.

Although we agree with the idea that there is not a 'new globalised city', but specific areas in some cities that have responded more clearly to globalising forces, my hypothesis is that at least some common changes may be observed, resulting in convergent form and structure, bringing very different outcomes in overall socio-economic patterns. While not all processes

related to globalisation might bring significant changes in cities' overall spatial structure, the emergence of new corporate hubs in many cities of the world, associated with the belief that cities had to adapt in order to take part in global circuits, is certainly associated with large structural operations carried out by the public sector supported by or in partnership with the private sector. Real estate valuation, gentrification or removal of populations in order to create space for new corporate developments and the development of new urban landscapes and new urban imagery are some of the spatial outcomes of this process.

It is possible to assert that some cities went through changes in their social, economic and spatial structure and composition because of the changes in the productive base. Large trans-national corporations and providers of services became key actors in the global arena as they entered more and more markets. The specific spatial requirements and structural needs to carry out business management and advanced producer services had to be matched by increasingly competing local governments. As previously stated, 'city competition' became a trend, as local governments were seen as more flexible and responsive to requirements from global actors. Local governments sought to attract command activities of the tertiary sector by means of partnerships, promotion of city 'revitalisation' and 'redevelopment' (often through very ambitious strategic projects and city 'branding') and through the offer of direct incentives to enterprises to locate their offices. New corporate hubs started to emerge, in order to fulfil these requirements and multi centrality became a common feature in many cities around the world. 'Old' centralities had to face new challenges to remain vital, especially in the United States and in some parts of Western Europe, but also in Latin America and Asia.

Locating global players in space might help us understand how public investment, employment, income composition and distribution, and real-estate value are responding to the specific input of global actors in globalising cities.

Our methodology consists on mapping the location of global enterprises' headquarters in order to understand how command functions locate in the urban territory. The choice of firms is based on sector of activity (different activities have different spatial requirements and different locational preferences), with an accent on 1. Accountancy, Advertising, Banking and Financial Services, Insurance, Law and Management Consultancy, 2. Firm size and global coverage, 3. Time of operation in host country (depending on when foreign firms have started operating, location choices obey certain intrinsic location logics as location patterns are also subject to inertial processes), 4. Time of operation in present location, 5. Origin of investment ('global' firms are not only 'foreign' firms. National firms that operate globally are also important articulators of global flows in the urban territory. Moreover, foreign and national global firms are in competition and interplay with other local (non-global) firms.)

Consistent with that query, we seek for the specific factors connected to spatial configuration and urban structure that might boost a firm's performance. These specific factors are assessed through parameters that will help us measure place attractiveness empirically. These are mainly:

- Geographical agglomeration of TNC and APS headquarters in order to establish 'target areas' of study (Daniels et al., 1993, Daniels and Moulaert, 1991) through mapping of headquarters and main offices
- Mobility and accessibility to and from 'target areas'
- ICT structure (Gholami et al., 2005, Castells, 1999)
- Socio-economic make-up of target areas and adjacent areas
- 'Creativity', the establishment of 'creative' industries in and in relation to target areas (Florida, 2002)
- Agglomeration of sophisticated consumer's services

- 'City elasticity', that is, spatial opportunities for the development of Large Urban Projects for renewal and strategic development (Rusk, 1995)
- Real estate market: land price and office space

One last parameter cannot be empirically tested. It refers to *image*. Image refers mostly to a subjective perception, a representation of places by investors and consumers, created or reinforced by multiple instances, like the media, publicity operations, public campaigns and outstanding architectural outlook.

These parameters are not exhaustive. They do not answer questions about a hypothetical increase in social urban divide under globalisation. They deal with only 'part of the story'. However, they may give us some important clues about issues like urban fragmentation, for instance. In our work there is a clear proclivity towards spatial criteria, because of the need to understand how the main articulators of global forces (TNCs and the public sector) are changing city structure and form.

The cases: The Randstad-Holland and São Paulo

Making use of a list of 100 enterprises compiled by GaWC (Globalisation and World Cities Study Group and Network, Loughborough University, UK) on Advertising, Accountancy, Insurance, Finance, Law and Business Management firms. We proceeded to a scientific survey on the location of each enterprise headquarter in the Randstad (the Western and most urbanized region of The Netherlands, including the cities of Amsterdam, Rotterdam, Utrecht and The Hague) and the metropolitan area of Sao Paulo, using a GIS-based program and direct survey. The sample, although small, is of special significance, because it includes the 'most global' APS or, in other words, those companies that are most likely to promote exchanges of human resources, knowledge, and technology among global cities. The sample has limitations, because it does not show which the largest APS operating locally are. It was necessary to correct and update the list, because of the complex dynamics of the service sector, where firms appear and disappear, go bankrupt or merge with stronger firms. The result was a list of 96 firms.

Results show that most of the headquarters of selected APS in The Netherlands are, not surprisingly, located in the city of Amsterdam and the neighboring city of Amstelveen. Amsterdam has a long history as Holland's gateway to the world, which it is now able to secure thanks to the presence of TNCs headquarters which articulate all kinds of flows. The region comprised between Amstelveen and the celebrated new business location developed by the Dutch government, the ZuidAs (South Axis) concentrates most top APS headquarters.

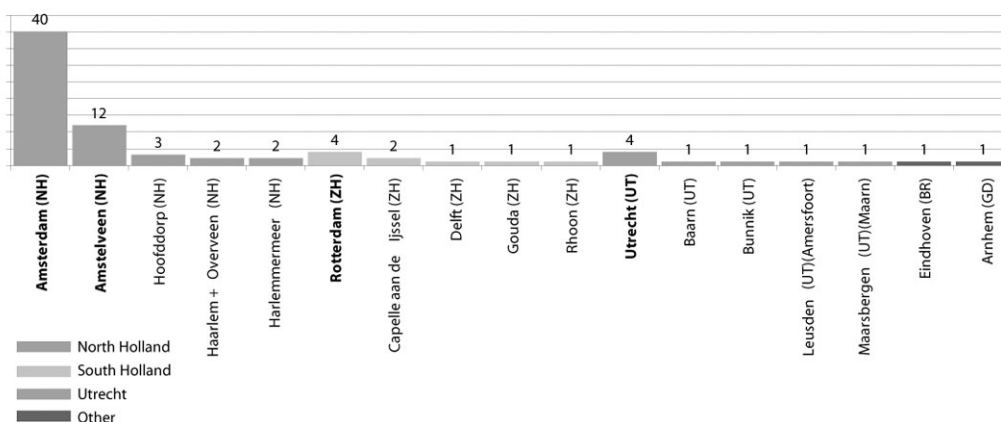


Fig.1: Municipalities where GaWC 100 APS headquarters are located in The Netherlands.

Fig 2. (below), shows a clear movement towards the development of new corporate clusters in the vicinity of the Amsterdam highway Ring (A10) and further, towards a secondary ring

into a mixed-used area. It consists of six islands on the south bank of the IJ River, each of which is to be developed into a different combination of functions. A total of more than 2.400 residences and some 400.000 m² of office and business space will be located in the area. The IJ-Oevers only became a very attractive location for business after the road connection to the ring was improved.



Fig. 3: Largest Dutch TNCs of all sectors (FORBES, 2004) and location of main Internet LANs in the region of Amsterdam (includes Haarlemmermeer/ Schiphol Airport and Amstelveen). Map R. Rocco (2006)

According to P. Joustra (Rocco, 2006), the development of the region at the South Bank of the IJ near the Amsterdam Central Train Station represents an opportunity for the city to expand its centre.

In other words, many activities being carried in the old centre of Amsterdam need to relocate because of sheer lack of space in the historical centre. Instead of moving to distant locations, the IJ-oevers project offers these activities the possibility to expand into an area contiguous to the old city centre. The area is diametrically different from its counterpart being developed in the Southern section of the Ring. The Zuidas is home of four of the largest Dutch TNCs: ING Bank, Amro Bank (the two largest Dutch banks and the first to heavily invest in the area), Vedio (an international staffing services company providing flexible labour, operating in 44 countries) and Vendex KBB Group (the largest non-food retailer in The Netherlands).

The Zuidas is intended as a high profile 'global' location. The development is highlighted by the Dutch ministry for social housing, regional planning, and environment administration (VROM) as 'a top location with international perspective' (VROM, 2004). It includes also a

huge Internet Local Area Network (LAN), located at the Amsterdam World Trade Centre building. What characterizes the Zuidas, apart from its outstanding architecture, is the fact that the area is perhaps one of the most well-connected areas in The Netherlands. Not only is it directly over the Amsterdam ring road, it has a large LAN and a train station. Schiphol International Airport is within 15 minutes away either by train or by car and the Amsterdam city centre is easily reachable by car, train, buses and in the future also by underground (a new line connecting the old train station in the heart of Amsterdam to the new development is under construction).

The local train station (WTC) is expected to be upgraded and will be one of the Thalys rapid train main stops, connecting the area directly with the centre of Paris and Brussels. The German rapid train ICE will also stop there, giving access to the whole German rapid train network. *“Good tax facilities, the quality of education, excellent housing and a solid public safety record complete the necessary conditions for this area with international appeal”*, claim the area’s official website (www.zuidas.nl).

The main structural achievement will be the transformation of a section of the Ring Road A10 into a tunnel, on top of which office space will be developed. The aim is to connect the two urban areas now divided by the road and create more room for office development.

Although the project is expected to include housing and leisure in the future, until now it remains essentially mono-functional. Approximately 45.000 people already work in the many companies operating in the area. This number is expected to rise to 70,000 in the next 20 years, when the project will be completed. The Zuidas is currently the largest urban project in development in The Netherlands. It has an office space area of approximately 59.000 m², but is expected to reach 1 million m² at its completion (PMB, 2006).

The Zuidas and the IJ-Oevers are managed by the PMB (Project Management Bureau), an autonomous department owned by the Municipality of Amsterdam bearing an independent status. PMB works with the municipality, developers, firms and other stakeholders in order to develop and manage large projects in the area of Amsterdam.

Although of difficult understanding, figure 4 (below) is shown here only as an indicative of the surprisingly rich number of different business hubs in The Amsterdam area. It shows all APS figuring in map 2 and all 17 largest Dutch TNCs shown in map 3. It also includes all bank headquarters with more than 50 employees, all insurance firms with more than 50 employees, as well as all headquarters of firms employing more than 1000 persons in situ.

The number of business hubs is much larger than when only Global APS are considered. Most of these hubs are there because they were planned by the Dutch government to house large companies, but this is not always the case (i.e. Amsterdam Centrum, Amstelveen A9 and Amstelveen Beneluxlaan. The Zuidas is also a complex location in this respect, because it owes its existence to sheer pressure from investors). Practically all of them have a deep connection with the A10 Amsterdam ring road or one of its direct subsidiaries, as well as the outer ring formed by A9. The business hubs at Schiphol Airport Area (Haarlemmermeer) are mostly related to headquarters of work intensive firms (logistics, transportation, catering). Sloterdijk Teleport (north-west) is also home of two important work intensive service firms headquarters: North Holland Publishing and UPC Chello (a TV, Cable and Internet provider)> The latter relies on the LAN Teleport. The area is also home to various Dutch Insurance Companies. Amstelveen is home to the headquarters of three service firms who employ more than 1.000 persons: KLM (airlines), KPMG (one of the largest accountancy organisations in the world) and Logica (ICT consultancy and software systems).

Many of these business hubs present an astonishing level of intermodality and the connectivity, allowing the easy change from one network to another or from one level of connectivity to the next.

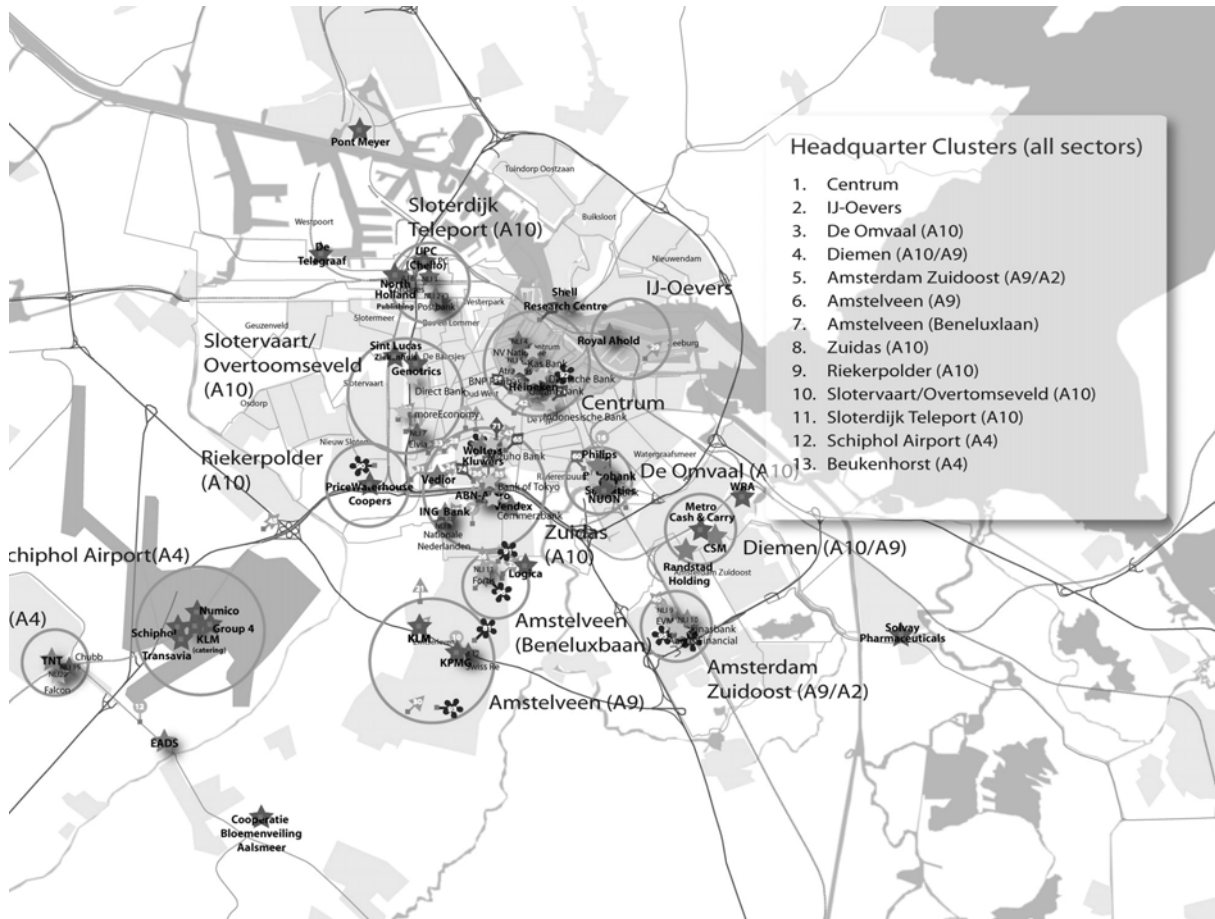


Fig. 4: Map depicting business hubs in the region of Amsterdam. Map R. Rocco, 2006.

In the case of São Paulo (fig 5, below), the absolute majority of firms researched operating in Brazil has headquarters in the city. This is consistent with the prominence São Paulo enjoys over the Brazilian urban network. Just like in the case of Amsterdam, this prominence is a historical construct. The relatively early accumulation of capitals due to coffee exports from the middle of the XIX century allowed the development of a transportation network centred in São Paulo covering a h. The old railway networks that used to transport coffee were replaced by highways and the city's primacy was accentuated by relative early industrialisation and the installation of automobile factories in its environs.

In São Paulo, there is also a movement from the older centre towards new corporate centralities near the west section of the road ring (Marginal Pinheiros).

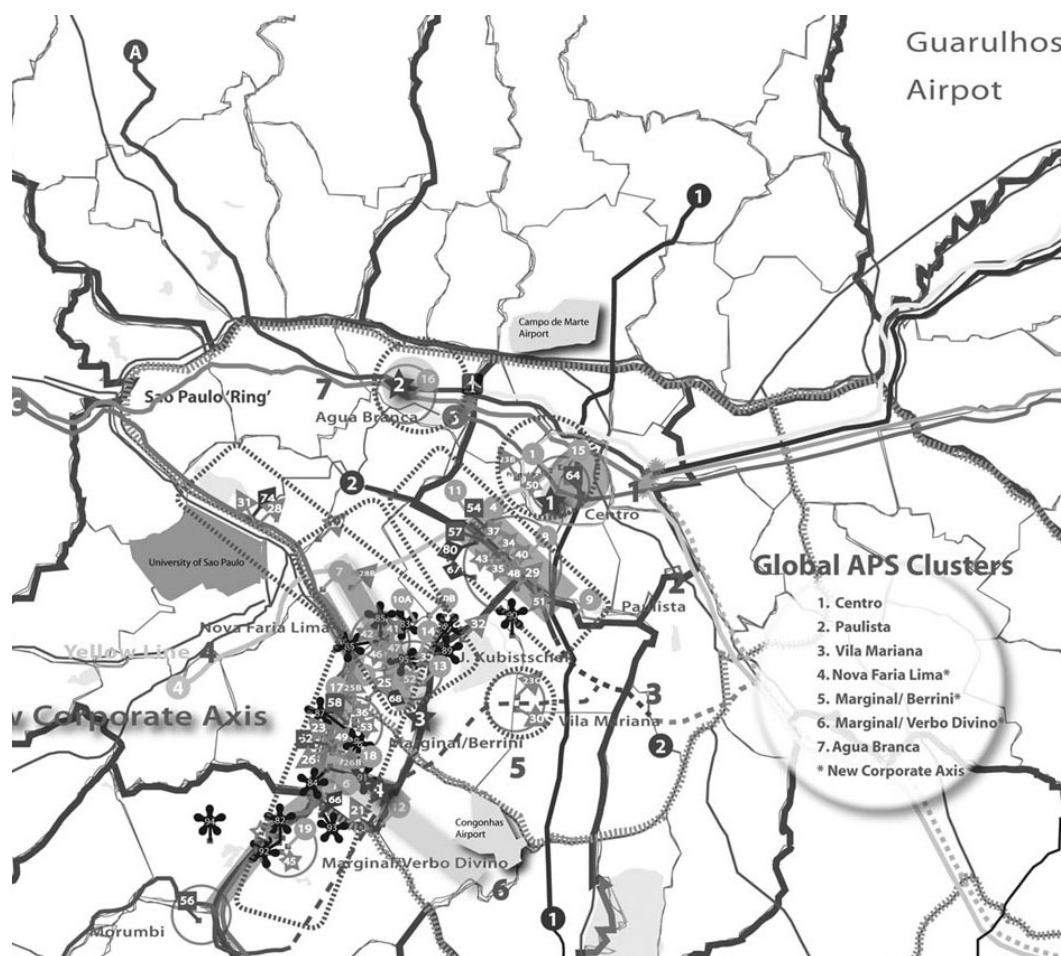


Fig 5. Advanced Producer Service Cluster in São Paulo. Based on the GaWC 100 list of Advanced Producer Services (Taylor and Catalano, 2005). Global APS firms are distributed over 7 clusters, which roughly correspond to the development of new business centralities along the XX century. The old CDB (Centro), although deemed unfit, is still able to retain a good number of global headquarters, followed by Avenida Paulista, Avenida Nova Faria Lima and finally the West of the first freeway ring (Marginal). The latter, which developed along the 1990's, constitutes a New Corporate Axis

Towards the polycentric metropolis

The same factors that allowed the dispersal of production and management also created the possibility to carry out operations in non-central places provided these places offered the necessary infrastructural conditions. This happened due both to the scarcity of suitable locations in the old centres (what we call 'internal urban inelasticity', following Rusk, 1995) and their increasingly downgraded image (especially in the case of North and South American metropolises).

The program and architectural features of buildings had to change in order to accommodate increasingly more flexible and technology-based activities, whose operations depend not only on virtual connectivity, but in hyper connectivity at various scales. Hyper connectivity is related to the superposition of various networks, whose nodes situated in close proximity allow for rapid change from one level of the network to the next (i.e. from international to local) as well as change from one type of network to the next (i.e. from an international train network into a global office development or into the local underground system). The richness of nodes and their close proximity creates optimal conditions for some kinds of service firms to operate.

In most old centralities, connectivity to new infrastructure (new, bigger and farther airports, ports and distribution facilities, located far from urban centralities) was not adequate. Old centralities were often not 'elastic' enough to accommodate large-scale interventions (Rusk, 1995), as the case of Amsterdam seems to indicate.

Old centralities in many cities also became increasingly congested and environmentally inadequate. 'New centralities' started to emerge where new activities related to the tertiary sector could be carried out more properly (e.g. Paris La Défense, London Docklands). This created a basic dichotomy between 'old' and 'new' centres, where old centralities were often seen as decaying, derelict and 'abandoned', especially in the case of large American cities. Most European cities were able to keep old centralities as desirable places for living and recreation, although they too had to create new places for business agglomeration because of city inelasticity.

In the cases of Amsterdam and São Paulo, it is clear that the new phase of capitalist production is reinforcing city polycentricity, either planned or triggered by market forces. New corporate centralities are the result of complex planning and negotiation processes, but also the outcome of 'market forces' represented by firms, which have imposed their agenda on the public sector. Some of the clusters are the result of large urban projects carried out in order to attract certain type of activities. They can also be understood as areas where certain powerful players have worked in order to create urban environments that are equally beneficial for real estate valuation and for the operation of certain types of activity connected to the dispersion of production and the tertiarisation of economy. The prominence of command functions and producer services as the most dynamic and innovative sectors of economic activity is not only changing the face of cities through daring architectural corporate projects. It is also changing the very structure of cities, promoting polycentricity.

Conclusions

The processes described in this paper can be shortly summarised in some general trends occurring in the two cases analysed:

There is a steady 'peripherisation' of advanced producer service firms to ring-like freeways, resulting in new corporate centralities. These are characterised by

- Easy access to other nodes in various networks (the ring factor)
- Easy access to big transportation infrastructure (the airport factor)
- Clear connection to old centralities where consumer services plus a part of producer services are concentrated (the cappuccino coefficient)
- Image seems to be a crucial factor. Corporate image is not only associated to buildings, but to the image created by modern, daring and innovative urban milieus (the Guggenheim effect).

Large Urban Projects carried out through partnerships between the public and the private sectors seem to be more successful where pre-existing structural conditions match firms' requirements, but such structural conditions may be created or improved. However, Large Urban Projects must work within a system of interventions (not as sole interventions) in order to create dynamic growth and synergy between the various nodes in the urban network.

Excessive concentration of investment in poorly articulated nodes may explain part of the problem of social and spatial polarisation. Investing in business centralities alone is not enough, because creating a one-dimensional node does not create the necessary synergy to promote growth. Various kinds of networks must be articulated, including the articulation between the global and the local networks, in order to benefit a large number of agents.

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