

ECONOMIC RESTRUCTURING AND NEW URBAN FORM

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*Dedicated to Professor Ilídio do Amaral who in 1965
introduced me to the works of Lewis Mumford.*

This paper is inspired by the observation of recent dynamics in the Lisbon Metropolitan Area, which I could characterise, in formal terms, in a progressive transition from the consolidated city to the **pulp urbanscape**, passing through an intermediate suburban area.

That idea of a non-urban form, something that is still **pulp** (or finished as that), fits in with the character of my paper, which at this stage I would call a **pulp vision** of a changing urban paradigm.

I could also quote Walter Benjamin (Gesammelte Schriften: Das Passagen-Werk, vol. 5, 1982, p.574) «*Method of this work: literary montage. I have nothing to say, only to show*».

I. INTRODUCTION

As can be expected, the role of the metropolitan areas is becoming increasingly important both in the field of services and of industrial production as the globalisation of the economy goes ahead.

However, not all metropolitan areas have enjoyed the same degree of evolution. In the case of the USA, for instance, the three largest metropolitan areas have registered much lower growth rates than their counterparts. The greatest growth rates of the eighties and nineties, as far as GDP is concerned, belonged to the metropolitan areas immediately beneath the three largest, i.e. those with population of between two and eight million inhabitants (Scott, 1996).

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It must be noted that we are looking at metropolitan areas in a very wide sense, which includes areas being urbanised outside the suburban limits. Metropolitan areas where new forms and a spatial segregation of urban functions are taking shape: housing, work, consumption, and leisure. Although there are differences resulting from different historical and cultural heritages, this tends to be the norm of urbanisation in America, Europe and Asia.

On the other hand, it is commonly accepted that globalisation of the economy has reinforced the importance of choice of location of productive units. The choice depends on a series of local characteristics such as local potential (human resources, infrastructure, technico-scientific environment, conjugation of time/space) as well as support rendered by the public sector (local, regional, national). Besides this, the interaction between the mechanisms of global competition and the diversity of the conditions of local production must be taken into account.

Cities and, above all, the big metropolises, will reap the greatest benefits from this situation. With the liabilities of the Fordist inheritance overcome and infrastructure updated, most big metropolises have reassessed their genetic code by both enlarging and diffusing it through the reorganisation and integration of new territorial segments. In fact, the successful cities and metropolises that we are speaking about today have developed themselves through two apparently contradictory dimensions: the conjunction of the recovery of their historico-cultural heritages and the setting up of new areas of production, housing and consumption areas leading to the development of new urban characteristics.

This capacity of *aggiornamento* demonstrated by the old metropolises – which led to an increase in value of urban capital – was a result of the capacity to introduce innovations in products and services, in productive and organisational processes, and in cultural values and practices. As at other times in history, the city was in actual fact the stage of change. But the form, the size and the social content of the new city is plural and diverse, being simultaneously both the result and the course of the changes resulting from the process of globalisation and relocation.

Globalisation is associated to the process of urbanisation, which assumes different forms within an identity and diversity of values and behaviour of its agents, who create spaces with, on the one hand, different characteristics and, on the other, with common infrastructures and images. In general, the new areas of industrialisation (and innovation) are new areas of urbanisation that are both integrated in metropolitan areas or outside them, in the **metropolitan area** (Ascher, 1995).

The announced (and documented) urban decline (or the decline of the city) in the sixties and seventies was nothing more than a process of urban reconversion that accompanied the transition of Fordism to post-Fordism, with the inherent consequences in the productive system, settlement, values and landscapes. The understanding of the new reality through recollections of the

landscape and the metaphor (Silicon Landscapes) is useful and interesting. We can suggest, for instance, that the **metapolitan** landscapes be analysed.

Another approach is by means of the regulation theory. We shall also limit ourselves to assessing micro and macro levels in this field. On the one hand, regulation on a planetary level is becoming more common (in trade, the environment, human rights, the use of weapons) while, on the other, local regulatory power is coming to the fore with decisions being taken by municipal and city authorities. The state has been relegated to a secondary plane by international institutions that lay down rules in which trade is always the initial moving force but into which other components are gradually integrated.

The state is also threatened by transnational enterprises that have seen their negotiating power increased. It must be remembered that some of these enterprises have a volume of trade that is superior to the GDP of some countries, which leads to a disequilibrium of power between these two institutions. On the other hand, an ever-increasing separation between transnational enterprises and their respective countries of origin can be observed, which is an inversion of the state/transnational enterprise relationship of the Fordist period. Even the parent countries nowadays find it difficult to coordinate strategies with their own multinationals, which also lead to loss of state power (Dicken, 1992).

There seems to be no doubt that globalisation has led to a vast range of both urban and regional independent productive systems. It has also been emphasised that this process has corresponded to a fall in the negotiating power of the State or Nation. The power lost by the state has passed into the hands, on the one hand, of international regulatory institutions and, on the other, of local and regional authorities (municipalities, cities).

However, we cannot underestimate the role of the state, because, as Scott (1996) pointed out, the state continues to play a fundamental role in world politics today. Moreover, international bodies need the states as a source of legitimacy.

Assessing the spatial and industrial structure of the metropolitan areas of the United States or the city-states of Hong Kong and Singapore, one can see a clear specialisation that was not, until recent years, a tendency in European areas of the same size. It is to be expected that with the elimination of barriers in Europe the trend will be for greater specialisation both on the part of countries and metropolitan areas (Scott, 1996).

Scott goes even further when he argues that the main productive regions will not only continue to grow but will also move towards specialisation. Following this line of thought, citing Krugman (1991) and Vernables (1995), he compares the American metropolitan areas and their level of specialisation to those of European countries of approximately the same size and comes to the conclusion that the latter will tend to acquire the functional structure of the former. Globalisation and the end of barriers, therefore, will not lead to homogenisation but greater specialisation.

Also raising the issue of the emergence of a new world geography, Scott (1996) thinks that the tendency for the regional concentration of production, which has become a means for the spatial organisation of the economy, is inevitable. The «agglomerations of capital and labour» «begin to assume the shape of confederations of city-states» *de facto*. In relation to this, Scott also uses the expression «an archipelago around the globe».

II. THE PRODUCTION OF INNOVATIVE SPACES

1. *Spontaneous production and voluntarist policies*

After a fruitful phase of analysis, from different points of view, of the relationship between innovation and territory, in which they used models and concepts with considerable descriptive content, several authors (Castells & Hall, 1994; Scott, 1996; Maillat *et al.*, 1993; Malecki, 1991) tried press forward with an operational plan, indicating guidelines for political decisions, pointing out possible articulations, attempting the elaboration of grass-roots projects, so to trigger a process of innovation and industrial development.

It can be said, however and without much doubt, that, in general, regional scientists (geographers, economists) have been fairly moderate, and even cautious, regarding the possibility that innovative spaces can be produced from voluntarist attitudes. The numerous monographs that have been published on successful industrial areas, always related with historical specificity to the field of technological innovation, tending to emphasise that each case is different and, therefore, that there is no recipe for success and that these models cannot be automatically reproduced.

Resilience and the ability to adapt to new situations, taking advantage of windows of opportunity, the existence of a healthy technico-scientific environment and the setting up of well-informed enterprises with interactive possibilities are some of the arguments presented to explain the cases of innovative areas that have found success. The metropolitan dimension or its proximity creates many of these conditions and this is why most of these monographs deal with such cases.

The most well known cases in the United States are those of Silicon Valley, Orange County and Boston Highway 128, all of which are linked to important metropolitan areas. Despite the celebrated case of the Third Italy, the three cases that show greatest strength and solidity in Europe all deal with metropolitan areas. These are Europe's two biggest metropolitan areas, Paris and London, together with Munich, which, thanks to entrepreneurial strategies after the Second World War, supereded Berlin, which was the hub of industrial innovation in the field of electrical engineering in Europe before the war (Castells & Hall, 1994).

At a lower level, innovative areas that have stood out in Europe are the city-metropolises such as Toulouse and the systems of medium-size cities like those of the Jurassian arc (Maillat *et al.*, 1993).

Some strong voluntarist attempts not only to create basic infrastructure or workshops, but to replicate in an innovative environment ended in failure or, at least, have not yet had the chance to show positive economic or social results or demonstrate their viability. Seville, or Cartuja 93, is maybe the case that has most caught the eye of the media in the nineties, alongside the major investments made in the industrial complexes in Southern Italy.

At an intermediate situation one can consider the experiments of hi-tech decentralisation carried out in Scotland and Ireland, where the effects of technological transfer are not as great as those seen in the above-mentioned metropolitan areas, although the Scottish case (Silicon Glen) seems to have been more successful than that of Ireland. However, as Turok (1993) pointed out, the Scottish electronics industry presents a simple dependent model, because most part of industrial linkages are attributed to capacity subcontracting or supply of relatively simple components.

2. Policies of innovation and land management

There is a general tendency to consider that the new industrial areas, characteristic of the regime of flexible accumulation that has been developed all over the world in the last few decades, are difficult to classify. It is even claimed that each case is unique (Scott, 1988). They are different in origin, in form, in size and in functional and social content. They will certainly be different in the future, especially in the degree of resilience they will demonstrate in periods of crisis.

It must even be considered whether social and institutional peace will continue to reign in these turbulent economic areas in which information flows at great speed and entrepreneurs are constantly gaining new opportunities. From the outset, changes in the supra-local regulation system may cause upsets that the local authorities can do nothing about. These assumptions are valid for the labour market or migration, as well as, for example, simple regulations concerning the production of urban land. In the Lisbon Metropolitan Area, where some areas are patently ungovernable, it must be recognised that internal systems of self-regulation predominate. One often wonders about the consequences of a land reorganisation plan in the productive system, even though it is designed so as to make the system more functional through supply of basic infrastructure and management of the productive infrastructures.

We are not dealing here with more or less visible aspects of a parallel component of the economy. There are cases in which public entities promote industrial workshops that are unsuccessful, while neighbouring areas (parcels of land or workshops) based on private initiatives are highly successful real estate promotions.

An alternative to transplanting or creating innovative «in vitro» environments is provided by some innovation policies that are aimed at supporting innovative projects through programmes directly designed for this purpose rather than for territorial gain. Firms, universities and research institutes or transport terminal structures may benefit from these programmes, for which funding by the European Union, through initiatives like STRIDE, can be acquired. Some projects aimed at reducing regional asymmetries do not seem to have produced any notable results so far.

Another dimension of the theme is related to land management policies which, implicitly or explicitly, may have a component of support for technological innovation. For some authors, the best policy to follow in order to attract investment in advanced technological fields is that which provides basic, high-quality infrastructure: roads, airports, railways, telecommunications, plus facilities in the fields of education, research, health and culture, but not necessarily infrastructure directed at new firms, like those of a BIC, incubators, workshops. These structures can be found all over Europe and have been successful where the environment is positive, which means that even if those structures did not exist firms would have settled there anyway. But many cases have ended in failure – usually when the environment lacks innovative features.

We can thus conclude that an interventionist attitude, whether in basic infrastructure or in the production of workshops at a local level – technological parks, incubators – can make sense if carried out in places that have been proved attractive in relation to productive and potentially innovative investment.

But to clearly define an «implementation of a milieu-type policy» as Maillat (1995) proposes is a complex and risky task. Objectives can obviously be defined and, inclusively, it is possible to mention generic and sensible measures, but problems arise when it is necessary to put them into practice and take decisions regarding investment priorities.

3. *Innovative spaces in Portugal*

Innovative spaces in Portugal are relatively limited in number and show an undeniable affinity with the metropolitan areas. This is the same as saying that the Lisbon and Oporto metropolitan areas are those that are traditionally at the forefront of innovation, a situation that is related to economic and social conditions and the elaboration of several policies (especially in education). The economic factors can be summarised up in three points:

- a) significant economies of agglomeration (the concentration of industrial enterprises and services);
- b) the competitiveness of firms (mainly in capital-intensive fields associated with more advanced technico-organisational structures);

- c) a unique labour market (unrivalled job opportunities for highly qualified personnel and for technical staff, at a national level).

As far as policies are concerned, the incidence of large investments in infrastructure in the metropolitan areas demonstrates the privileged position these areas occupy in Portugal. However, the education policies adopted throughout the years seems to be a more pertinent explanation for the situation, despite the slight inversion registered since Portugal's entry into the European Union. Research and Development (R&D) investment in Portugal privileged the two metropolitan areas and the university city of Coimbra throughout the years and only recently, with the deregulation of higher education (the opening of private universities) and the rise of institutes and polytechnics, has a certain decentralisation in favour of the interior of Portugal emerged.

The apparent decentralisation and the present situation of R&D activities in Portugal deserve a closer study. It seems that this phenomenon has only occurred in the field of higher education, as the public research sector (laboratories and research institutes) continue to play a crucial role in the national R&D system in the areas mentioned above (Fonseca, Gaspar, & Vale, 1996).

The R&D spending on the part of firms is far inferior to that of the EU average and this is one of the main weak points of Portugal's R&D system. A slight fall in entrepreneurial R&D spending has even occurred in the last few years, which is undoubtedly associated with the gap between PEDIP I and PEDIP II (Specific Programme for Portuguese Industrial Development). This fact leads us to conclude that Portuguese firms need financial backing to carry out R&D projects. The regional distribution of entrepreneurial R&D spending also shows a high concentration in the metropolitan areas, above all in Lisbon, which is due to the specific characteristics of the productive fabric of this region (Fonseca, Gaspar, & Vale, 1996).

Some authors claim that a policy of innovation only took shape in Portugal after the country's entry into the EU. In fact, it was only after its entry that Portugal had sufficient financial instruments at its disposal to create productive and facility infrastructures for innovation. Besides reinforcing the R&D potential of higher education and public laboratories and among other measures taken, two science and technology parks, an innovation agency and several technological centres were founded.

As in other cases in Europe, the science and technology parks try to emulate other known success stories. These innovation areas in Portugal are located in the Lisbon and Oporto metropolitan areas. It can be questioned if these areas, which possess innovative potential superior to the rest of the country, really need such infrastructures. There being no easy reply to this question, it may be added that infrastructure of this type implies the existence of a fairly strong productive fabric. If it were not so, it would be difficult to spread

the benefits that result from such infrastructure in the regional economy, especially as far as the transfer of technology is concerned.

Technological centres have a different philosophy to science and technology parks and are mainly designed to provide technical support for firms with limited resources. As such, this innovation infrastructure has a more dispersed location, being associated with areas of strong productive specialisation that are mainly made up of small and medium-size firms. The establishment of technological centres aims at increasing firms' technical capacity, especially small and medium-size firms, incorporating technology into production, encouraging research, the sharing of development and ideas and products, fostering links between universities and enterprises and supporting the creation of innovative firms.

The BIC's are more oriented to the problem of endogenous local development and, excluding the cases of Lisbon and Oporto, the location of these structures follows a logic of implantation in medium-size cities with a potential to foster regional growth.

III. MIXING BUSINESS

1. *Process of Innovation and Process of Urbanisation*

Some authors have argued that the life cycle of a city is the result of Kondratieff cycles. These cycles of a city's life would not only have a definition on the demographic, economic and social spheres, but also in the production of urban space itself, with effects on urban and architectural forms.

The demographic component could become autonomous, in that, as has been seen in the eighties and nineties of this century, increases in population have not corresponded to the expansion of cities' economic power, which came mainly through the growth of the tertiary sector and rises in industrial productivity (Sassen, 1991). On the other hand, after decades of urban-architectural **uniformity** and **neutrality**, cities have acquired new forms and, above all, new colours and environments, accentuated by an explosion of infrastructure, in a context of promotion and marketing of places.

Although this simple relation between the urban cycle and long wave economic cycle can be questioned, Freeman (1991) suggests the idea of **technological paradigms**, resulting in bunches of innovations that cause, over a period of time, changes in the urban area. Empirical evidence can be found between the process of technological paradigms coming to the fore and the cycles of crisis and boom in some cities. As Dicken (1992) shows, each Kondratieff cycle has his own geography, and the fall of a certain technological paradigm is often related with the economic crisis in certain regions/cities.

Science and technology systems are located in cities where innovation is created and disseminated as a result of the dynamism of the economic fabric, frequently characterised by the existence of highly competitive enterprises. The labour market also plays a crucial role, as the concentration of upper and middle management is far greater in the metropolitan areas. Some authors, such as Benko (1993), emphasise the environmental conditions, the supply of business services and the cultural dynamism of the urban environment. In fact, economic innovation is associated with social innovation. Change always implies the acceptance of new socio-cultural values and also in this field it can be said that the metropolitan areas are more responsive to change due to their more heterogeneous social strata.

Bacon said that he who did not want to apply new remedies should expect new maladies. Innovation appears in reply to temporal changes, almost always associated with negative factors. If it is true that economic changes represent threats to institutions and people and that the response lies in the search for new solutions, it was not in a temporal sense that Bacon made the remark. The ever-increasing occurrence of phenomena and globalisation demand a search for faster solutions and so both explicit and implicit policies of innovation are adopted by practically all developed countries.

The chances of success are considerably greater in the metropolitan areas and because of this we have witnessed a process of **urban recentering**, which also encompasses innovation policies. Untraded interdependencies are seen, in the words of Storper (1995), as the basic reason to explain the resurgence of urban and regional economies.

In recent texts that follow the lines of thought of GREMI, urban policy has tried to improve the conditions necessary to capture, retain and diversify investment as a means to widen the economic dimension of cities. Thus, the city appears as an integrative spatial dimension of the local or regional economy, in a context of globalisation.

Plans elaborated for cities are altered according to new socio-economic realities. In Europe nowadays, one speaks more of rehabilitation, renovation, recovery and revitalisation and less about urban expansion. Undertakings almost always result in the construction of emblematic spaces in a fragmentary intersectionist context. The same principles can also be observed in the field of innovation: the multiplication of technological centres and parks with culturally singular urban arrangements are a good example of these new principles.

If big urban areas are the laboratory *par excellence* for experimenting with innovation policies, medium-size/intermediate cities also appear in the context of national space. In previous works (Gaspar 1993), I tried to show that medium-sized cities in the outer peripheral areas of Portugal have conditions for sustaining innovative enterprises, although in a different way from the metropolitan areas. In the former areas, the sharing of functions and facilities of innovation is the only solution to counteract the reduced dimension of the agglomerations.

At the end of the 20th century, cities are definitely places of innovation, at least in the developed world. The convergence of sectorial policies in urban areas are an evident sign of this change. Innovation in the methods of intervention are also singular: enterprise/central or local authority joint ventures; urban marketing; construction of icons of success.

Cities, whether large or medium-sized, have the conditions to create the innovations defined by Camagni (1993). On one hand, the processes of collective learning in the cities (above all in the metropolises) permit the continual promotion of creativity, product innovation and technological development. On the other hand, elements of uncertainty in the metropolises, intrinsic to the process of innovation, are more easily overcome due to the better perception of results obtained by the strategies of firms and entrepreneurs, to the easier decoding of information and to anticipating the strategies of other economic agents.

2. *New and old urban forms: marriages and divorces*

The post-Fordist economic restructuring generated a variety of new urban forms that were superimposed on, grafted as it were, onto or articulated with already existing forms.

Several authors have looked at the question from different angles and have made different assessments. In a synthesis on economic restructuring, Coffey & Bailly (1996) also look at the question of spatial restructuring on an inter-regional scale and on an intra-regional scale. It is on this scale that some systemisation on new spaces and new urban forms occurs in Europe and North America as a result of economic restructuring.

On the whole, it may be said that the urban area has become more diversified, wider and, as a result, less dense both as far as economic activities and the resident population are concerned, although there is sometimes a high density of buildings with the emergence of new central areas.

A greater complexity of social structure also corresponds to a great diversification of forms. Some authors (Marcuse, 1989; Harl e & Fainstein, 1992) have touched on the question of the relationship between urban areas and social strata as a result of economic restructuring; the systemisation, however, shows itself to be more difficult than that carried out by the Chicago School in the 1920's.

Although highly suggestive, the hypothesis of the urban cycle (Van den Berg *et al.*, 1982) manifests great difficulty in its application to realities and its conceptual limitations.

Although the urban phenomenon in North America is better suited to creating a model, it is also clear that in Europe the new patterns of economic restructuring are not only creating a new Regional Economic Geography of Europe but also a new Urban Geography.

This new Urban Geography includes both functional and social dimensions and a new urban landscape. There are four important aspects of this new Urban Geography, which has been more deeply dealt with in monographs on the American city but which also appear suitable to deal with the case of Portugal.

- a) The encroachment of the metropolitan areas on semi-rural areas, already manifesting certain urban characteristics, has been noted. French authors frequently talk about **periurban**, the Americans about **exurbia** or **exopolis** (Soja, 1992). There are many other designations, very often used according to the type of intervention (or its promotion) in the periurban area. In his *Edge City*, Garreau (1991) presents an impressive list of new terminology that tries to identify the phenomenon of new urban forms that are taking shape beyond the limits of the city and the traditional suburbs: urban villages, suburban downtowns, suburban activity centres, urban cores, galactic city, pepperoni-pizza cities, city of realm, superbia, disurb, service cities, perimeter cities, etc.

Using the French case but taking the American case as a reference, Ascher (1995) introduces the concept of **Metapolis** to describe the reality resulting from the expansion of the metropolises and defines it as follows: «a metapolis is a series of spaces whose inhabitants, as a whole or in part, economic activities and territories are integrated in the daily (common) functioning of a metropolis. A metapolis is generally a single catchment area of labour, housing and activities. The spaces that make up a metapolis are extremely heterogeneous and are necessarily contiguous. A metapolis encompasses at least several hundred thousand inhabitants» (p. 34).

With roots in economic dynamism, spaces of the metapolis give rise to great changes in economic, social and political behaviour. Certain aspects must be pointed out: the concentration of power, the social segregation of space, the increase in individualism and localism, new forms on different scales.

Although it is not completely licit to speak about the American «model», as exurbia/expolis appears in different situations subject to different interpretations, the fact is that the new American urban reality includes a family of basic presuppositions (infrastructure, codes, social and economic dynamism) and a series of urban components: work areas, residential areas, material consumption areas, leisure areas...

Some of these areas and, above all, their forms, are transformed into universal icons and the respective *ersatz* are repeated world-wide. Europe is no different. Portugal, which has a fragile urban culture, is sensitive to the chances of transplant.

- b) The reduction of density of the metropolitan nucleus in different ways – the end of industry, a growth in services, greater social polarisation (from populated areas to ghetto areas), areas of urban renovation for the new middle classes or for a new centralisation of retail and services.

Among other forces in action, there is the change from city of business to the city as a business as the chief motor of all this process (Gaspar, 1995; Frieden & Sagalyn, 1989).

- c) The different destinies of old industrial infrastructures give rise to very unbalanced urban landscapes – from industrial wasteland to big regenerative undertakings and more or less successful strategies for the re-utilisation of infrastructure for other purposes.
- d) Suburban areas have different destinies. Without the advantages of the metropolitan nuclei, some suburbs undergo a faster and more profound change that can give rise to more repulsive environments. But in other cases, some residential suburbs that are well located in relation to a number of amenities can be transformed into attractive cities based on a relocated tertiary sector.

The new urban spaces are very different from those 30 years ago. Superimposed on this apparently disorderly patchwork quilt, however, networks where people, goods and information circulate are constructed, giving coherence and cohesion to a physically and socially divided space. Castells (1996) speaks about the network society and present a typology of the informational city, which has some similarities with our analysis: the suburban areas of America; the European cities; the megacities of the world.

3. *Portugal and the metropolis as an innovative milieu*

As Castells & Hall (1994) pointed out, there are only two great exceptions in which big metropolises that were at the head of the process of technological development lost their leadership. Both cases are related, although in different ways, to the end of the Second World War and the Cold War that followed it. Berlin lost its role as German and world leader of the electro-technical industry to Munich and New York ceded first place in high-tech industry to South California.

Portugal has no such cases. Lisbon has always had the leadership of Portugal's technological innovation. It is hoped that some policies in favour of abandoning the capital do not lead to future disasters or, to paraphrase a French author, a useless «Lisboncide» (Heurtreux 1994).

Lisbon has been the main focus of innovation in Portugal since the foundation and consolidation of the country. This process reached its peak – in

an international context – in the 16th century and continued on the same course in the following centuries. Modern manufacturing entered Portugal through Lisbon. The city was the first place to have steam engines and the railway.

The modern, although late, industrialisation of the country was carried out with Lisbon as its main centre. While traditional industries and intensive and end-of-cycle labour were exported to the north of the country, the steel industry, more advanced mechanical engineering and chemical plants, including fertilisers and petroleum, were set up in the Lisbon region.

The revolution of 25 April 1974 and the nationalisations that followed retarded the process of industrial restructuring, which, however, and unnoticeably, went ahead, above all, in the second half of the eighties, both through endogenous initiatives and through foreign investment, in industry and in services and with a particular focus on research and development.

The Lisbon Metropolitan Area thus kept its leadership as an innovator, but subspaces emerged within the metropolitan mosaic with a greater capacity to renew the economic base through new products, new processes, new entrepreneurs. These subspaces, as far as they can be defined, show some similarities with semi-peripheral areas of Europe that played an analogous role. The clearest cases, both on the northern and southern banks of the Tagus, correspond to the rural peripheral areas dominated by agricultural smallholdings with a long tradition of economic complementariness with Lisbon (supply of food, logistical support, some industry) and where a process of diffused urbanisation is taking place, together with suburbanisation. This is giving rise to a very rapid social change (a part of Almada, Palmela and Montijo on the south bank; Oeiras, Sintra and part of Loures on the north bank). An isolated and different case is that of Porto Alto, a township that came into being in the fifties with the construction of the bridge across the Tagus at Vila Franca de Xira. It became a meeting place for lorry drivers and it was not long before industries that took advantage of the existence of the road junction were established there. People from the north and the south and even Lisbon settled here. Industries oriented to the African market were set up with the outbreak of the Colonial War ².

The most important component of the country's industrialisation in the sixties was heavy industry and some segments of mechanical engineering, especially car assembly and electrical industries. These industries were mainly concentrated in the Lisbon Metropolitan Area, on the south bank of the Tagus

² These arms industries developed greatly in the sixties, the main centre being in the Lisbon Metropolitan Area, although dispersed throughout several municipalities – Lisbon, Oeiras, Loures, Almada. The modernisation and the growth of sectors such as arms, telecommunications, uniforms, transport material (land, sea and air), freeze-dried foodstuffs was evident. Lisbon has been the main centre of a small military industry, which enjoyed a boom with the Colonial War, since the 18th century. Small civil opportunities such as telecommunications, engineering and aviation could have been built up on these units (and may still be able to).

(the Setúbal Peninsula), where centres like Barreiro, Setúbal and Almada became emblematic of the new economic and social reality. Due to nationalisation and other forms of state intervention in firms, the eminently Fordist structure of industrialisation was artificially prolonged until the second half of the eighties, and in some cases up till today.

In the face of the serious economic and social crisis that the Setúbal Peninsula suffered in the eighties and with Portugal's entry into the European Community in 1986, the government requested the Commission that an Integrated Development Operation for the Setúbal Peninsula be launched, a request that was approved and implemented in 1988. The overall results have been positive, especially in the fields of infrastructure and in the improvement of environmental quality. The main component of productive investment has been the joint venture of Ford and Volkswagen (AutoEuropa) (Ferrão & Vale, 1995).

Meanwhile, deindustrialisation has gathered pace in the Setúbal Peninsula, but the supply of cheaper housing has speeded up the process of suburbanisation in regard to Lisbon. On the other hand, reindustrialisation has taken place in the municipalities on the northern bank, above all in Sintra. The tendency to invert the roles between the two chief segments of the Lisbon Metropolitan Area is more clear today. The Setúbal Peninsula, despite all the efforts of public bodies (the State and Municipalities) to recover its industrial importance, is growing in population due to cheaper housing. The northern and western sectors of the Lisbon Metropolitan Area, and in particular the district of Sintra, a traditional suburban sector of Lisbon, has attracted a large number of industries and a dense web of small and medium-size firms has developed.

4. New areas of industrial innovation in the Lisbon Metropolitan Area – public backing and private initiative

The first experiments with workshops for new firms, in a perspective of incubation and support for innovation, were launched with the IDO of the Setúbal Peninsula.

The first beneficiaries were CEISET (B.I.C.), first in Almada in premises belonging to Lisnave and afterwards in Setúbal, and NACE, of IEFP in Setúbal, in the former premises of a car assembly plant. With state capital and the EC and the support of the University (through UNINOVA, a structure of the Universidade Nova de Lisboa to back R&D, which has also received large public financing), entrepreneurial associations and the municipalities, the results obtained by CEISET and NACE-SET are not the object of much enthusiasm so far. The incubated firms were small in number and the sectors chosen were not, in general, the most interesting and nor did the technologies introduced show many innovative aspects.

Two initiatives have gone forward on the northern bank: TAGUSPARK, a Science and Technology park, and the Lumiar Technological Park. The former

is a joint venture of municipalities/university/central administration/private sector, while the latter was founded under the auspices of Portugal's biggest public laboratory, INETI (National Institute of Engineering and Industrial Technology). With functional aims and different dimensions and locations, it is still too early to be able to make any valid assessment. As far as funds are concerned, however, expectations are great.

Besides the installation of AutoEuropa, with a group of *just in time* suppliers, on the south bank, the curious case of Quimiparque should be noted. It is a series of workshops for any type of enterprise, erected on the ruins of what was once the biggest industrial complex in Portugal (CUF/QUIMIGAL), which occupied 300 hectares in Barreiro. About 270 firms, ranging from a hypermarket to small graphic arts enterprises, with around 6,500 workers (exactly the number of jobs lost with the closing of Quimigal) are already installed there.

In the context of the IDO of Setúbal and taking advantage of the legacy left in the field of telecommunications (the sixties and seventies: Colonial War, digitalisation of the telephone network), an attempt has been made to develop a cluster of electronic/telecom enterprises and form some small technologically-advanced firms while simultaneously launch new projects in already-existing firms. But the most important event in this field was the foundation of multinational firms in the area of audio and electronic equipment for cars: first a GM firm, then Ford and, finally, Pioneer.

Deindustrialisation took place on the northern bank of the Tagus before it occurred on the southern bank and lasted for a long time. The paradigmatic case is the refining and petrochemical industry, which only closed down permanently in Lisbon with the launching of EXPO'98 and when the Sines complex was able to meet the needs of the country. Some heavy mechanical engineering was also maintained through internationalisation and continuous access to big infrastructure projects such as the bridge across the Tagus, the underground railway and the modernisation of the railway network. The areas most affected by the process were the city of Lisbon and the River Tagus axis (the municipalities of Loures and Vila Franca de Xira).

A renovation, meanwhile, has taken place in the industrial base, which has led to a greater dispersion of firms over the territory and more firms leaving Lisbon. On the other hand, considerable change has been noted in the sectorial structure.

The main axes of reindustrialisation have been in the Tagus Valley, the industrial belt stretching upriver from Vila Franca de Xira, a notable example of which is the Azambuja, Carregado and Porto alto axis (logistical platform), at the same time that new units have been installed in the municipality of Loures. There has been a slowing down in the western sector (Oeste) (the Oeiras-Cascais axis), the main decline verified in mechanical engineering, clothing, war and electrical material. This axis tends to attract service firms, in a move to decentralise Lisbon. The Northeast – Amadora-Sintra axis underwent a

profound change in structure, at the same time that the number of firms and jobs rose. The evolution is most positive in the municipality of Sintra, where the number of jobs in industry rose by 31.6% between 1988 and 1993. The clothing sector was the only one that lost jobs (-9.5%), while the biggest rise was in the manufacturing industries of metal products, machinery, tools and transport material.

IV. GLOBAL V LOCAL. THE SHORT VERSUS THE LONG TERM

1. *The relevance of Max Weber or the return to the Polis*

In his essay on the city, Max Weber (1921) emphasised its economic nature, distinguishing cities of production and cities of consumption since antiquity. As in ancient Greece or even Mesopotamia earlier, according to Weber, there was an association between **fortress** and **market** at the end of the Middle Ages, which implies both their functions and the inherent classes. Sienna was the perfect paradigm in its internal forms – the **Piazza del Campo** as opposed to the **Mercato**, which was analogous to the **kasbah/ksar** in relation to the **bazaar** in the contemporary Muslim world.

There emerged, therefore, in antiquity, in Greece, India, Mesopotamia and other places, as in the Middle Ages, the embryo of the city as a place of economic, social and political power. Analogically and anachronistically we may call it the city-state.

Long-distance trading allowed people to accumulate the capital necessary to bring about the Industrial Revolution. Industrialisation and urbanisation are phenomena that go hand in hand. It seems that throughout history the city has been the key to leadership: defensive city, trading city, productive city, city-state. It is also the big metropolis that commands the economic system nowadays. They could also be called city-financial centre, city-cultural centre, city-innovation centre. Changes in the nature and enhancement of urban functions often lead to defeatist analysis regarding the future of the city.

But the new city does not fall into any specific category, having many different behavioural patterns and forms. Even accepting its economic primacy, this can be seen in several behavioural or rational patterns according to the communities and the opportunities they encounter.

2. *From global competition to local exclusion*

It is curious to note that at the same time that there is world-wide competition among areas of the same type and different scales – vast regions like SE Asia, South America, North America, etc., countries, regions, cities, without

concern for external factors or equality – the struggle in urban areas, metropolises, or small- or medium-size cities, in more developed countries is for the preservation of the environment, for a reduction in density, for a certain ideal of the quality of life. This does not mean, as sometimes argued, a policy of negative growth, but a policy of growth based on high value added services, on cultural and leisure activities and, in order to maintain an image, a certain number of activities that can be generally classed as ecological.

The rebirth of many medium-size European cities or peri-urban centres of the big metropolises has taken place based on this social and economic platform – the intransigent defence against any negative intrusion on the environment, whether from the productive or the non-productive sectors. This attracts the middle and upper-middle classes and the generation of a service-based economy – it is the city that belongs to the residents or a victory for the *not in my backyard* philosophy.

Urban social movements evolve. The policy of keeping certain groups in ghettos in order to prevent conflict has been followed. Latent feelings remain, active feelings are suppressed. But among other consequences, the new middle classes, who grew wealthy, found a feeling for the quality of life and the quality of the urban environment. This created a contradiction: the refusal to promote economic growth in a context of fierce competition and lack of jobs and the acceptance of the philosophy of sustainable growth.

It is clear nowadays that the only solution for the survival of the system is growth, but the clear separation of material production, immaterial production and consumption continues to foster that apparent contradiction.

By refusing growth at any price, many cities/urban areas automatically attract people, increase their influence and create powerful centres of immaterial production and consumption. They are endowed with power.

3. *The signs of the slow emergence of a new city: the city-state*

Several authors have quoted Singapore as the possible paradigm of the new city-state (Taylor, 95; Sorkin, 1992).

It can be observed that new powerful cities that can be understood through their instruments of power are springing up everywhere: Atlanta with its airport and highway, erected on the ruins of an industrial city, Baltimore and its Harbour Place and airport, California, which is more an archipelago of urban centres emphasised by the forces of history and the forces of the present (Silicon Landscapes...). New agglomerations can be found on both sides of the Rocky Mountains – annex towns dedicated to consumption or production.

In Europe, the concept of **region**, the traditional word that gained strength in political rhetoric and misled many people when speaking about territory, has changed to the sense of **urban-region** – not the area centred on a city, **the city of the region**, but a more dispersed, more extensive area characterised by the assumption of diverse **forms of urbanism** that **epitomise time and space**.

As a world-city, London is neither a city nor a traditional metropolitan area, but the city and the south of England that became detached from the rest of Great Britain (Taylor, 1995).

With the new forms of urbanism, is the success of the so-called successful regions of Europe bringing back the city-states of the beginnings of capitalism? Milan/Lombardy, Florence/Tuscany, Barcelona/Catalonia, Paris are situations in which the city, or a cohesive network of cities, eliminate territory and, above all, make the state redundant.

In Europe, therefore, it is not a model of regional power that is taking shape, but that of a continent dominated by city-states, in that the cities, as urban areas with economic and social cohesion, hold ever-increasing proportions of the economic, financial and political power. Neither are cultural changes initiated within the state but in these cities. Curiously, it is the institutions of the European Union that are doing the most to validate and maintain the eroded realities of the nation-states. If, in the opinion of some ideologists, **regionalism** and the weakening of the State is the way to strengthen Europe, Urbanism or a Europe of Cities will surely not be the path recommended for the construction of Europe.

When we speak of networks of cities on a supra-national scale, as networks of complementariness and synergies as often referred by Sassen in the context of global cities (Camagni, 1993), the Eurocities, the *ville-estruiales*, the METREX metropolitan areas, to limit ourselves to Europe, we are really preparing a return to the **city leagues**, functioning across state borders. Steps are being taken to form **worldwide city leagues**. We are in the sphere of economic and information exchange, but also of social experience and cultural behaviour. The intertwining of the movements will strengthen cohesion and create a new political dimension. From economic and political power to military power can be but a short step.

Max Weber's American publisher, Don Martindale, did not make the correct diagnostic when he wrote in 1958: «the modern city is losing its external and formal structure. Internally it is in a state of decay while the new community represented by the nation everywhere grows at its expense. The age of the city seems to be at an end.» (Martindale, 1958, p. 62).

Regional areas boundaries (when they exist) are disappearing, just as those of states are, while separating strips between *urbanships* are emerging. The case of the Iberian Peninsula is very curious. The most decisive step taken against the central domination of Madrid, a polygonal, hierarchic city, was the assertion of a certain number of truly autonomous cities, or axes of cities: Catalonia and, basically, **Barcelona**, a city-state; **Alicante-Valencia** define an urban autonomy that has political and administrative repercussions in Pays Valenciano; Andaluzia has really ceased to exist and what is left is a scattering of urban *taifas* – Almeria, Granada, Malaga, Algeciras, Seville... This contrasts with what happened in Portugal, an autonomous almost millenary state turned to the

sea, which soon led to a general coastal settlement that the autonomous communities merely helped.

Portugal will tend to become (if it wishes to survive) a bipolar urban space or, although improbably, evolve into two *urbanships*. Galicia, which like Portugal inherited a dense, dispersed demography, simultaneously has active forces that tend to strengthen the coastal cities of Vigo, Santiago and Corunna, three cities that grew in stature due to the fact that their three football teams rose to the first division, which is another type of sign/symbol in the autonomy of cities both in the USA and Europe.

V. FROM WORLD MAP TO CITY MAP – *from new urban forms to the new city*

The world is becoming urbanised beyond the cities, through the enlargement of metropolises, through the merging of urban agglomerations that obey different patterns and control both the new and the old urban forms.

The detail of the traditional city map is superfluous to understand the new city and when we look closely we often run the risk of misinterpreting the contents as we are still following the concepts that have become unsuitable – street, garden, public space, private space.

Physical planning tries to adjust this new reality through measures that range from the organisation of public transports according to densities – pedestrians in the city centre, cars in the outskirts, trams in the intermediate zones – to the demarcation of vast reserve areas that are adaptable and flexible. The most relevant adaptation is that which occurs with the move from structural planning to strategic planning.

Strategic planning does not need to take into account the various temporary factors that meet the needs of a rational production process of space. Strategic planning may be either anticipative or adaptive. Above all, it does not demand a specific model of land or, in particular, of urban space management. Surgery can be performed on both the old fabric of the city or suburb or on the virgin spaces of the exurbs.

Strategic planning also makes the multiplication of the diversity of urban spaces possible while leaving doors open for alternatives and new opportunities. It is maybe prudent, therefore, not to speak about the failure of urban planning. More suitable instruments that will respond to needs that have not yet been clearly defined are probably being used.

Meanwhile, it is once more necessary to associate to these diverse urban spaces, these new and old urban centres, suitable periods of time so that we may understand that we are facing a process of construction of not only new urban centres but also a new city – which will certainly take a long time to become commonly understood. Citizens still governed by the codes of their previous city will need time to become accustomed to the various dimensions of their new

spaces. They will adapt new codes through the accumulation of experience and social contacts.

The so-called post-modern urbanism, in all its multiple facets, in its apparently predatory component, is not yet a consolidated reality. It certainly corresponds to a step in the evolution of capitalism, but this statement does not provide an explanation and even less a perspective, because the changes observed go beyond socio-economic relations and assume a civilisational dimension.

The changes that we see in economy, society, culture, have left indelible marks on the shaping of the new territorial forms and are simultaneously changing, maybe less perceptibly, the **political** relations between people of different places.

We may be living through a faster revolution than the one that led man from a nomadic to sedentary existence or, at least, faster than the one that corresponded to the turbulence of the change from an agrarian to an industrialised society.

The new urban forms derived from the new realities of production, consumption and housing may be indications of the **Polis** of the future. If so, the differences pointed out by several authors among the various processes of economic and urban reconstruction indicate how urban cultures and landscapes will be different in the future, although continuing to constitute families that have more or fewer blood ties among them.

This means that despite repeated ephemeral and localised signs, globalisation does not signify the homogenising of the new city.

On a global scale, cities have become inextricably bound by the web of interconnected complexities of the «global age», yet, they are increasingly diverse within themselves, changing in structure, in roles and in nature. The spread/diffusion of the city and its disarticulation with a centre is forming an urbanity without an evident core or enveloping skin – but rather, a pulp urban-cape – mixed and heterogeneous (an urban reality free of limits).

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