

## Compacting Porto Alegre: the New 'City Gates' Project

### Introduction

There are striking changes in Brazilian urbanization standards nowadays. The city of Porto Alegre, south Brazil, a medium-sized metropolis (circa 1.5 million) provides practical examples that can illustrate some of the changes. It is the central pole of a Metropolitan Region comprising 31 municipalities that totalises a population of 3.5 million inhabitants.

This paper will refer to planning strategies addressed to interfere with city growth. Sprawl is seen as negative in terms of development and policies aimed at controlling urban dispersal are welcomed in contemporary city planning. It is well known that the goal to "compact" the growth of a city is a defiant one, often unattainable in real terms. Even so, attempts at containing the city sprawl must be attentively followed, with any progress carefully registered and reported by urban researchers. This is the main purpose of this paper: to present a case in which the "internal expansion" of a city is looked after – a sort of infill, instead of a continuous outward extension.

A situation for a planning action of this kind in the Porto Alegre area known as "4<sup>th</sup> District" seems ripe to become implemented. The project, named "The New City Gates", reflects concepts and policies usually associated to the prevention of urban sprawl, though its original guidelines do not make any specific mention to address this precise objective. There are good indicators that this goal, though indirectly, will be successfully met. Therefore, it seems important to pay a more accurate attention to the project's development. Accordingly, the following topics will be discussed: (i) the urban re-development of an area of ancient occupation, which comprises both urbanized parcels and undeveloped land (formerly destined to receive the city's garbage sanitary dumping). (ii) The development of a former industrial brownfield, that is to say, the reurbanization of an emptied area formerly destined to lodge industrial manufactures, which have now transmigrated to the city's metropolitan region. (iii) The carrying out of densification policies involving twofold compactness actions: denseness through public policies (the provision of newly built social housing areas); and denseness through private investments (the provision of new residential units built by the private sector, and employing either the typologies of gated communities or of higher-density high-rises).

The research area includes three neighbourhoods, namely *Humaita*, *Farrapos*, *Navegantes*, situated along the river border, and centrally located in relation to the metropolitan layout. Altogether, they comprise over 600 hectares. All three of them are partially cut off by physical barriers, mainly constituted by transportation lines, such as the metropolitan over ground train railways and the fluvial dockyards, but a continuous dam also plays an important deterrent barrier. Also sited in this area, are the road transport "doorways" of the city, so to speak, represented by the convergence of two important roadways and the bridge over the river Guaíba. The new project, in addition, forecasts more road connections as well as ameliorations in the network system.

Ultimately, this is a case which depicts a down-to-earth situation in a medium sized Brazilian metropolis; in which urban sprawl may be still governable; and a case which portrays emblematic sprawl deterrence concepts in practice, since it adds to the city's overall planning policies achievements.

### 1. Urban re-development

The northern territory of the city is constituted by *Farrapos* and *Humaita* neighbourhoods. They are both located at the northern and western limits of the municipality of Porto Alegre. There are signs of a strong conurbation beyond these bordering limits, with the urbanized

areas of the municipalities of “Canoas”, at North, and “Guaíba”, on the West side. This particular region remained undeveloped during most of the twentieth century – at least until the mid fifties. When the process started, the relatively recent urbanization was predominantly residential, and contrasted deeply with that of the *Navegantes* neighbourhood nearby, known as the pioneer location for the industrial sectors of the incipient metropolis of the time. According to Census data, *Humaita* neighbourhood presented an average gross density of 25 persons per hectare in 2000; whereas *Farrapos* neighbourhood, due to its intensive occupation by squatters, reached 103 persons/ha, also in 2000 (IBGE, 2000). At that time, the average density in Porto Alegre as a whole was only 29 inhabitants per hectare. The process of urbanization in the city’s northern area started by the implementation of huge real estate projects, by initiative of both, public and private sectors. The public sector got in charge of one large social housing project, intentionally designed to reallocate a group of poor people who used to live in risk areas in the vicinity; whereas the private sector got in charge of producing mixed residential and industrial uses so as to cope with the housing needs of the less well to do groups of the metropolitan population.

Since this initial occupation, the area has been marked by a lack of territorial connectivity, believed to be the cause of the accentuated spatial fragmentation shown by the sector today. However, the fragmentation process may have indirectly contributed to the present planning opportunities the area is actually experiencing. This is so, because the fragmented zones received different *interim* land uses, which, somehow, became responsible for “reserving” land for future urban developments. Although involving some problematical usages, such as garbage dumping and, even, an occasional invasion of slums (called “favelas” in Brazil), the *interim* occupations have managed to keep large tracts of land unused, thus allowing for the introduction of new functions, as it will be discussed later on in the paper. Figure 1 shows the area’s land use distribution around the 1950s.

# 1950s

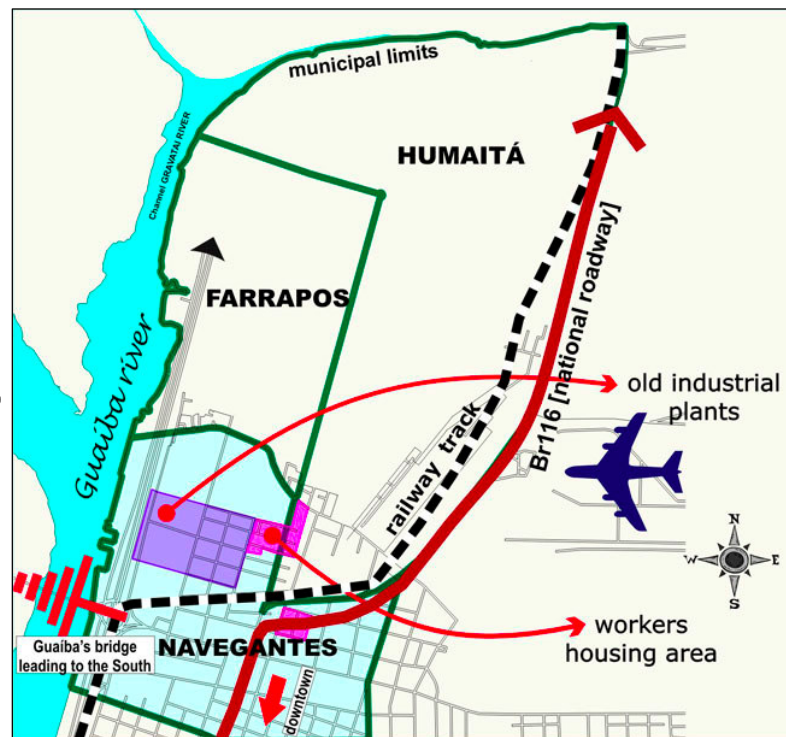


Figure 1 – The region, scarcely urbanised during the years 1950's. Source: Research Group.

In the 1950s, the local government promoted a planned development of a housing estate project, named *Vila Farrapos*, extending over an area of about 50ha. The main goal for the

public sector was to provide a clean, safe, healthy and good quality housing environment for low income people, allowing, at the same time, for the resettlement of a group of families then located next to the railway track which marks the border line with *Navegantes* neighbourhood. The layout of the *Vila Farrapos* housing estate is structured as a system of open public spaces, with the latter interspersed within the residential blocks, destined for recreation, rest, practice of sports, playgrounds and gardening. Apparently, they were designed so as to stimulate the creation of *places* for people's gathering and for social conviviality, besides providing for the necessary hygienic airing of the area. This experience has been the first one promoted by the local authorities in terms of launching a social housing community, and attained a great success. It also stands out for having initiated the development and urbanization of an area hitherto unoccupied, due, among other conditionings, to the adverse topographical conditions, particularly by the lack of adequate protection against flooding. More importantly, by the time of the implementation of this pioneer project, the flooding protection system of dams had not been laid down in Porto Alegre, yet. The project achieved in providing an urban environment of high standards, and generated an active and gregarious residential community.

In the 1970's, twenty years later, another important part of the northern territory was also urbanized, this time, as a mixed use area, with the core destined to residential land use, and the margins, assigned as industrial plots. This new urbanization, positioned in the coastal lowlands (subject to occasional flooding), has been made possible only after the compaction of a sanitary landfill accumulated by the dumping of the city's garbage for a long period of years. It is called *Parque Humaitá* and extends over some 100 hectares, built up in compliance with the functional urban codes brought about by the Modern Urbanism movement, in full force in Brazil at that time. The adoption of the basic principles of modern urbanism is most clearly expressed in the design of the blocks containing the housing towers and community buildings, in the form of isolated slabs and towers, distributed around a large central park and surrounded by a peripheral ring destined to industrial uses (Figure 2).

# 1980s

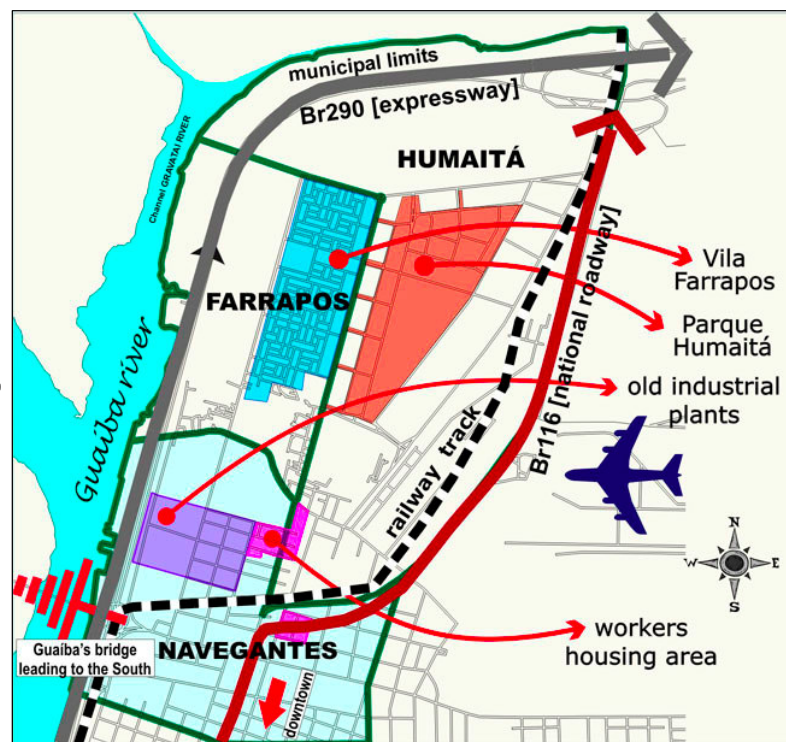


Figure 2 – Land use distribution after carrying out the huge public and private real estates projects.  
Source: Research Group.

Figure 2 shows the urbanized sites by the 80's. It also depicts the neighbourhoods units *Vila Farrapos* and *Parque Humaita*, the *Navegantes* district borders, some points of reference of the urban fabric, as well as the interfaces of the district with the rest of the city.

The enforcement of strict planning regulations, imposing the industrial use as the single recommended land use for the *Navegantes* district, controlled the area's urban development for a long period of time, somehow "freezing" the emergence of any further land occupancies.

## 2. Brownfield "Renaissance"

The urbanization of this city sector started in the nineteenth century, when the city embarked more determinedly in the process of modern industrial production. Those were also the times when large storehouses were in high demand for some specific industrial types, such as textile and garments. Numerous depots, destined to serve the newly built industrial plants, and consuming vast extensions of land, proliferated mainly in the northern part of the *Navegantes* neighbourhood, due to the easier access this part of the region offered to the major lines of transportation services. The strong and rapidly growing industrial vocation of the district has encompassed an increasing urbanization, creating demand for the incorporation of housing areas to lodge the industrial force of the employment areas nearby. The strategic location of the district, crossed over by the region's major roadway axes and by the railway sidetracks, has been crucial to the consolidation and growth of Porto Alegre's industrialization process. Paradoxically, the same location attributes ended up by inflicting a severe isolation of the area, bringing about increasing difficulties for traffic mobility, eliminating many of the initial location advantages and producing, eventually, an industrial migration to more accessible outside areas. In the long run, the district faced a situation of abandonment, and became unjustly punished by the excessively vigorous process of urban-industrial growth it had experienced. Earlier than expected, several parts of the district became derelict, untouched by modernization procedures, and gave rise to a large number of emptied buildings and sites, most of them centrally located and well equipped with infrastructure. In other words, produced what the Anglo-Saxon literature commonly refers to as industrial "brownfields" (CASTELLO 2005 p.36-37; WRIGHT 1997).

In general terms, the urbanization process practiced in this part of the city can be summarized as mainly determined by the sudden introduction of huge constructions, some of them responsible for causing considerable, though intermittent, social-territorial and environmental impacts. In the 1990's, however, an interesting urban project intervention, surprised the otherwise "frozen" 4<sup>th</sup> District scenery. The project aimed at the reuse of a "brownfield" area, as a viable planning strategy for revitalizing old relics of the area's wonderful urban-industrial landscape. As a matter of fact, the project, initiated in 1994, brought a breath of innovation to the whole district, since it involves the introduction of revolutionary new uses for the region, such as the opening of entirely modern shopping facilities, and the practical implementation of unprecedented heritage preservation policies. Furthermore, the project's location has been fortunate enough so as to assemble a variety of extremely valued contextual spatial and psychological assets. Among them, it seems mandatory to mention at least three: the *bridge over the river Guaíba*, an architectural mark that symbolizes with extraordinary strength what is perceived as the "city gates" for those arriving from other Brazilian states and from the neighbouring countries of Argentina and Uruguay (Figure 3); the *Our Lady of the Navigators Church*, a place endowed with an amazing mystic aura and highly meaningful for the population's religiosity (Figure 4); and the old manufacturing plants of the textile sector, especially *Renner factory*, which has since represented, for the whole city, the success of an innovative experimentation in terms of planning the reuse of disused heritage monuments, as well as an efficient symbol of the preservation of the local and regional identity.



Figure 3 – The bridge over the river Guaíba connects the city to the southernmost Brazilian areas, and to the neighbouring countries, Argentina and Uruguay. *Photo: H. Amaral.*

Figure 4 – The church of Our Lady of the Navigators, historical and cultural reference of the neighbourhood. *Photo: internet.*



Figure 5 – Renner factory industrial plant. *Photo: L. Castello.*

The project, named “Distrito Comercial Navegantes” (Commercial District Navigators), is a private sector initiative, and focuses on the reuse of the Renner factory refurbished units (Figure 5). The shopping complex counts today with “(...) approximately 20,000 m<sup>2</sup> of rentable area, occupying a site of slightly over 6ha (...) as well as some new tailor-made buildings (...) the retail outlet is rapidly acquiring the meaning of a ‘place’ in the overall city’s structure” (CASTELLO 1999 p.184). Later on, in 2006, a new intervention took place, this time with the participation of the municipal authority, which established a partnership with the managers of the *DC Navegantes*, and provided the refurbishment of an old disused street, reintroduced under the name of *Events Street*. This new urban facility is designed to host the activities, promotions, parties and events promoted by the private sector, with the participation of the DC management. The initiative represents yet another innovative planning tactic, this time, by offering a merger between activities of recreation and cultural practices, the latter, played by the presence of a new theatre and a university campus.



2008

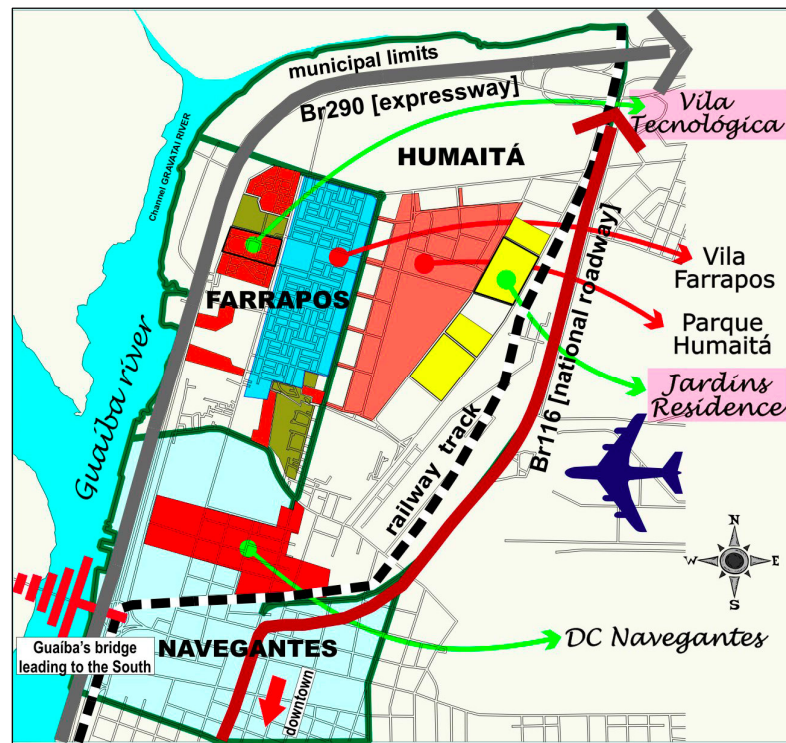


Figure 6 – The densification process in course through piecemeal developments. *Source: Research Group.*

### 3. Actual Densification Policies

Despite the public and private efforts to accomplish a planned development for the area, the region still presents a good volume on undeveloped spaces as well as numerous areas lacking proper qualification. This situation stimulates the irregular occupation and the invasion of land unsuitable for urban development, provoking spatial disarrangements and social unrest. The way the urban fabric is perceived today points out to a sort of a “patchwork” which includes planned urbanizations and irregular areas, circumscribed by – and “hidden” behind – a set of peripheral main roads.

Currently, the 4<sup>th</sup> District welcomes one of the biggest housing projects ever encouraged in the region. Known as the “Programa Integrado Entrada da Cidade” – PIEC (*City Gates Integrated Program*), it has the sponsorship of the “Prefeitura Municipal” (the Local Government) of Porto Alegre, and receives financial support from the Brazilian Federal Government. The program envisages for this relatively segregated inner-city zone, the creation of a large residential area for low-income people, who currently live in irregular conditions and in liability areas in the vicinities. The planning of the area foresees the construction of 20 residential clusters, under different morphological configurations, which include ordinary parceling of the land for residential units, the incorporation of autonomous condominiums, and the provision of infrastructure services for land invaded and occupied by squatters. It is anticipated that, in a period of 5 years, the scheme will accommodate over 3,700 families (Figure 6).

Besides the provision of the new housing stock, the *City Gates Integrated Program* covers another four schemes for the upgrading of the region: the provision of road infrastructure, through the construction of streets, avenues and the establishment of road links with the metropolitan region; an ambitious landscape recovery planning program; the creation of job opportunities for the generation of income, through the implementation of two waste-sorting units, one Cooperative, and some 170 new retail and services outlets located nearby the

residential nuclei; and finally, the program foresees the provision of social facilities such as schools, kindergartens, community centers and clinics.

One example of this contemporary pattern in the production of residential units is found in the so-called “Vila Tecnológica” (*Technological Village*), destined to the very low income population who formerly occupied unsuitable areas in the region. The project, inserted within the PIEC Program, is physically structured as an open community extending over 3.45ha, and lodges 157 families. Census data registered for the municipality of Porto Alegre a medium of 3.05 persons per family and a gross residential density of 29.4 inhabitants per hectare, in the year 2000. The *Technological Village* gross density reaches approximately 140 persons/ha, a value that is considerable higher than the municipal average. This value shows a tendency towards a densification, even if contrasted with the relatively high average density of 103p/ha shown in the *Farrapos* neighbourhood (the *Technological Village* is situated beside it) (Figures 7-10).



Figure 7 – Vila Tecnológica's real estate. Source: Research Group - PMPA/DEM HAB.



Figure 8 – Community services located at the Technological Village main access advertises the PIEC Program. Photo: F. Sena.



Figure 9 – One street at the Tecnologica's environment. Photo: I. Castello.



Figure 10 – The central square with its playground is intensely used by youngsters. *Photo: F. Sena.*

More recently, perhaps emulated by the governmental initiatives and by the relative low cost of land in the 4<sup>th</sup> District, private real estate capitals have also started to head towards the farther north sector of Porto Alegre. Some massive investments in the production of housing have already been introduced in the region, addressed mostly to the lower and average income groups, adopting innovative residential settings in the initiatives. This is the case, for example, with the new residential scheme adopted in the compound named “Jardins Residence” (*Residence Gardens*), a condominium for independent units to be implemented in successive stages. An entrepreneurial initiative, this condominium spreads over a total area of 6.5 hectares, and, in reality, is composed by four autonomous *Gardens*. This is due to the enforcement of a local planning legislation that prohibits the building of condominiums in areas larger than 2.25 ha. The four independents nuclei have been licensed and constructed in stages, and managed to evade successfully the municipal ordinance by means of the strategic phasing adopted during the implementation (Figures 11-14).

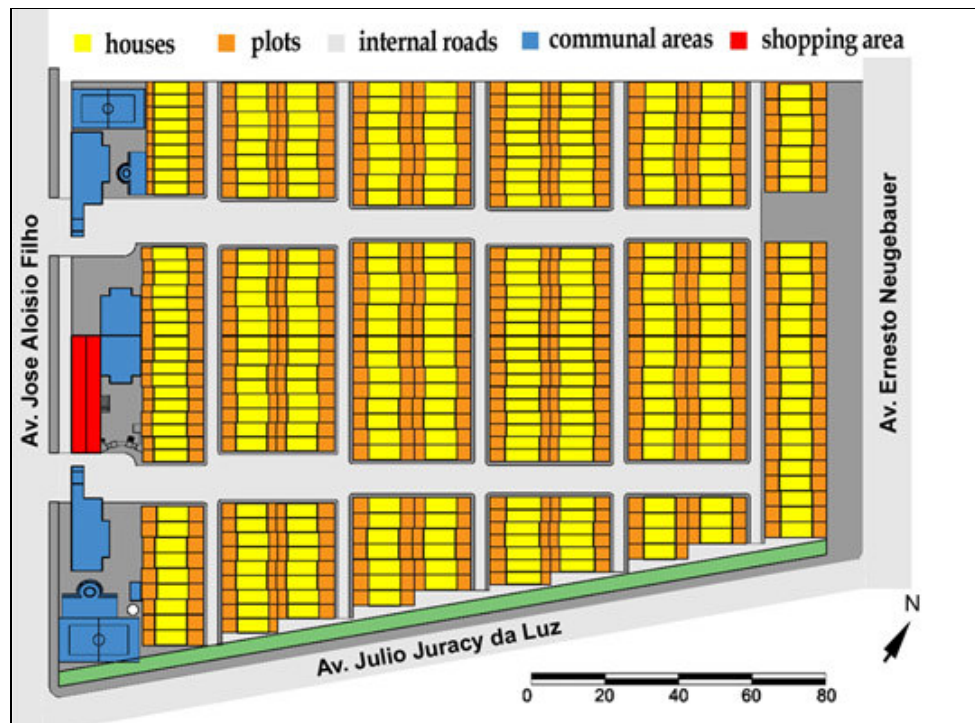


Figure 11 – Land use distribution in “Jardins Residence” Condominium. *Source: Research Group.*



Presently, in 2008, four Gardens have been already completed, providing lodgement for some 600 families. At the rate of 3.05 persons per family, the Gardens house altogether some 1,830 people, reaching an average gross density of approximately 280 persons/ha, when considered the 6.5 hectares occupied by the *Gardens*.



Figure 12 – Shopping facilities open to the main street bridging the gap between the gated community and the neighbourhood. *Photo: F. Sena.*



Figure 13 – Playing field amidst the rows of dwellings inside the condominium area. *Photo: I. Castello*



Figure 14 – The condominium's main access connecting to the main street. *Photo: I. Castello.*

In terms of rises in the district's residential densification this figure is, obviously, a positive one, since in *Humaita* neighbourhood (in whose limits the *Gardens* are located) the average density reached only 25 persons / hectare in 2000.

A next stage of the *City Gates* project is currently under way. It will add new 5-floors buildings, offering a total of 1,800 new apartments, distributed in 56 units. Today, there are already 1,000 apartments ready for sale in the real estate market.

Lastly, it is worth remembering that the territorial limits of Porto Alegre have not changed at all, and no urban sprawl occurred in this urbanization episode.

## Conclusion

The overall conclusion of this brief discussion might be known well beforehand - at least, by those planners and urban researchers who have a closer intimacy with their area of knowledge: *city-planning is an art, not a formula.*

The best achievements in planning come from the conventional scientific sources of knowledge, of course. But, there are quite a few hidden points lying interspersed within the

planning subjects themselves that keep waiting to be uncovered and conveniently put to use. In the case discussed in this paper, some areas would remain dormant were they not approached through alternative focuses, besides the technical ones. A few comments about these features will follow.

The so-called 4<sup>th</sup> *District Region* has been contemplated with the implementation of great innovative projects, most of which have brought pioneering advancements for the city and for the metropolitan region of Porto Alegre as a whole. Among them, one can start by remembering that the industrialization process itself has been introduced there. And that this process has also flourished there, contributing enormously for the building of the economic wealth the city has ultimately achieved. But the distinctiveness displayed in the urban evolution of the region includes many other features as well.

It includes, for example, some very original planning actions that relate to the ways the residential sector was being approached in Porto Alegre. Suffice it to mention the “Vila Farrapos” plan, with its portentous dimensions, that constitutes a mark in social housing planning. In this same direction, the “Parque Humaita” is also an expressive mark in residential planning, since it has been modeled in accordance to the most advanced modernist urbanism design paradigms of its time.

Notwithstanding the favorable urban development tendencies shown alongside the area’s urban development, the city’s overall planning policies seemed to persistently bypass the district. As a matter of fact, the planning activities in Porto Alegre seemingly have left the area in oblivion, which brought about its relative squalor. It was as if the area should be regarded as a second class precinct, unworthy of more dramatic planning actions. If, on the one hand, this demonstrates the efficacy of city’s planning guidelines (which have effectively managed to direct urban growth towards other zones of the city), it indicates, on the other hand, that *urban sprawl is not entirely an unavoidable condition in today’s urbanization*.

The “internal expansion” of the 4<sup>th</sup> *District* is a quite interesting example of a city’s inward growth. Thanks to it, Porto Alegre is expanding and increasing its inner-city residential density according to a *centripetal force*, rather than sprawling along several kilometers away from the center, following the centrifugal force, a more likely consequence in the ordinary urban growth practiced in planning.

The latent potential of the 4<sup>th</sup> *District* seems to be finally achieving a materialization which is long overdue. And this, thanks, mostly, to the *densification* process it has been experiencing in these turn-of-the-millennium times. And thanks, as well, to the remarkable technological advances our contemporary society has managed to attain, which allow, for example, to build complex structures upon compacted sanitary deposits; to ‘fly’ over immovable obstacles by audacious elevated traffic bypasses; or to freely circulate along unobstructed *Ring Roads*, like the one that will finally touch the area in the very near future.

There are, of course, skills of different characteristics involved in the substantiation of the present achievements – in fact, much more than the skills conventionally associated to Urban Planning in general. To start with, there are strategies that clearly draw more deeply (and more liberally) on the talents and creativity of the citizens themselves – the creativity inherent and unexploited of the city’s own residents – artists, businessmen, authorities, cultural critics and (why not?), even scholars and academics. Such skills have been adopted in several projects actually going on in the region, and show very clearly the manifestations of a number of contemporary existential practices, definitely more akin to the present time’s society.

This would be the case with the ground-breaking enterprising intervention practiced in the DC-Navegantes shopping center, for example. There, the architectural heritage has gained a re-birth; the industrial remnants have acquired real living conditions once again, and the architectural heritage managed to thrust into the city’s economic circuits once more. The planned intervention that promoted its reuse reflects the increased awareness planners have

about the changing habits of today's population, responding more acutely to their leisure and consuming demands.

This would also be the case with the pioneering introduction of university courses in the region, a bold entrepreneurial action that started within the DC-Navegantes refurbished factories, and has now extrapolated to other neighbouring sites.

Finally, this would be the case with the welcomed presence of a new conservation ethic in current day planning, manifested through the preservation and reuse of cultural and natural assets, as a crucial way to incentive the sustainability of the urban environment. In the end, among other benefits, this ethics will help to avoid the urban sprawl over the natural neighbouring territory.

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