

RESIDENTIAL SPACES AS URBAN FABRIC: THE CASE OF SÃO PAULO

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ABSTRACT: The accelerated population growth faced by São Paulo during the 20th century resulted in a construction of a complex and ambiguous territory. Since the end of the 1930s, São Paulo has developed different public housing policies to face the growing housing deficit. These policies gave priority to quantitative issues and gradually dissociate the urban residential project of the city construction process. Meanwhile, we can identify projects that have sought this double challenge: The residential amount and the urban quality. This essay attempts to analyze from historical processes, the role that public residential urban projects have played in the construction of the metropolitan territory.

KEY WORDS: rapid urban growth, urban structure, social housing, residential urban project, socio-territorial inequalities, São Paulo.

SÃO PAULO METROPOLIS

The metropolitan region of São Paulo has an area of approximately 8.051 km² and its urbanized area corresponds to 2.209 km². Today the population of the metropolitan region of São Paulo is approximately 20 million inhabitants of which 11 million live in the city¹. The metropolitan region of São Paulo raises 19% of the Brazilian GDP, which does not prevent; having rates of unemployment around 17.6% and a residential deficit of around 12%². This represents approximately 864 thousand homes, whereas the total deficit of the country is 7.2 million homes³.

According to data published by the *Ministerio das Cidades* in 2004, 88.2% of this deficit corresponds to the poorest population without economic resources to access a mortgage⁴. At the same time, these housing needs are increasingly concentrated in urban areas and especially in metropolitan regions across the country. On the other hand, the same diagnosis disclosed the existence of 4.6 million vacant housing units in the same Brazilian metropolitan centres. In the Southeast, where São Paulo is located, the number of vacant homes might even exceed the housing deficit in the region.

The spatial expression of these social contradictions is the construction of a large metropolitan area, disjointed and sparse. Being the result of a peripheral residential expansion, in which 70% of housing construction occurs outside the formal market.

Especially in São Paulo, the public housing policy developed, for decades, a strategy of territorial occupation which reaffirmed this model. Today the city has a fragile urban balance, where environmental problems are increasing and the socio-spatial segregation is dramatic. "Fig. 1"

¹*Empresa paulista de Planejamento Metropolitano.*

<<http://www.emplasa.sp.gov.br/portalemplasa/infometropolitana/rmsp/rmsp.asp>>

² Martins, Maria Lucia Refinetti. *São Paulo além do Plano Director*. Article submitted to the *Centro de estudos avançados FAU-USP*. 2003.

³ *Ministério das Cidades. Cadernos MCidades. Política Nacional de Habitação* n.4, 2004.

⁴ *Ibid*, p17.



Figure 1 View from the Favela Paraisópolis and in the background, the Morumbi district, São Paulo 2004.

ASPECTS OF THE METROPOLITAN CONSTRUCTION

The current metropolitan structure is the result of a historical process of urban occupation. We consider three main factors that contributed to the consolidation of an inarticulate urban fabric, in the physical, social and functional sense were: the rapid population growth, the existence of a structure of regional mobility and an expansion pattern based on urban residential sprawl.

Rapid population growth

At the beginning of the 20th century the housing crisis exploded in São Paulo, between 1886 and 1900, the population of the city grew from 44 thousand to almost 240 thousand. And in 1930, the city had a population that reached 1 million inhabitants. This demographic explosion was due to the thriving economy derived from activities linked to the cultivation of coffee and subsequently to the development of a strong industrial activity. From the 30s and later years in the 50s, large investments in metropolitan São Paulo were made consolidating the industrial park that promoted sustained migration processes. As a result of this process in 1960 the population of São Paulo was nearly 5 million people.

São Paulo: regional articulation point⁵

São Paulo is characterized as an articulation point, where lines of communication converge allowing a regional structure. This trail system goes back to the colonial period. From 1860, this structure was characterized by the expansion of the rail system and then to 1940 when it was distinguished by the creation of an extensive system of intercity roads.

⁵ Meyer, Regina; Biderman, Ciro and Gronstein, Marta Dora, “São Paulo Metr pole,” S o Paulo, EDUSP, 2004. p.37

This new road system dates back to 1930 with the publication of the *Plano de Grandes Avenidas* of Prestes Maia. The Plan, although it has not become law, established the foundations for a new road network, which in addition to restructure the existing city, was extended in a regional system. The logic radio centric expansion plan with clear Haussmanian roots, allowed multidirectional expansion, although not uniform. As the municipal boundaries did not mean to be a barrier for this expansion, an urban sprawl was quickly configured that overlapping nearby municipalities, characterizing a periphery of metropolitan scale. "Fig. 2"

"During the period between 1940 and 1960, while the central city had a population growth of 171 %, its surroundings grew to an average of 364%." ⁶

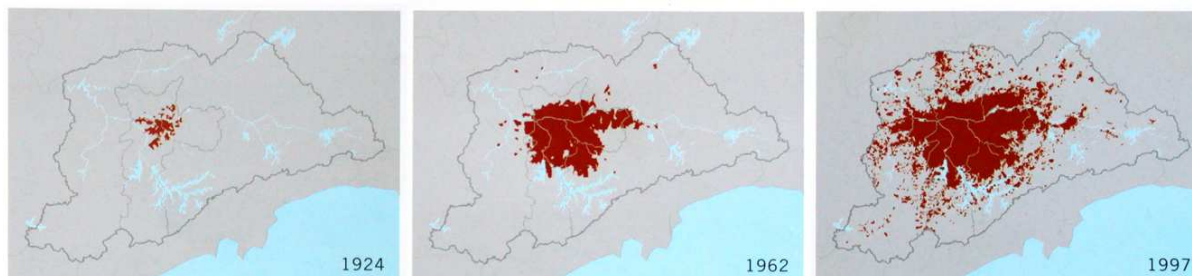


Figure 2 São Paulo metropolitan region: evolution of the urbanized area, 1924 - 1962 - 1997. Between 1965 and 1990, were converted, in an unruly way, 1021 km² of rural area to urban use.

Peripheral residential expansion: the growing of urban sprawl

Therefore, the vectors of regional accessibility were facilitating the growth of poor low income settlements. In this sense clandestine urbanization is a phenomenon deeply related to Metropolitan growth of São Paulo. The result of this practice has been an extensive process of urbanization without "city construction".

If on one hand the government was unable to solve the increasing housing shortage, on the other it closed their eyes to land speculation and allowed the expansion of the periphery through irregular plots with low levels of urbanization. Characterizing a parallel model of housing production based on the trinomial: housing, self construction and peripheral urbanization.

To sum up, these three parallel processes contributed decisively in the physical formation of the Metropolis: a periphery with little or no infrastructure, but that grows continuously; a central area that concentrated urban functions and infrastructure, but that loses population and is degrading; and between them a series of urban voids, land reserves of capital real estate. The connection between these three belts is through the road infrastructure and the insufficient public transport system, which consists mainly of buses and some rail lines that connect the centre to the distant neighbourhoods called "end of line". Certainly two of the worst consequences of this practice have been the physical, functional and social urban segregation of the metropolis and apart from this the predatory growth in environmental reserves areas."Fig. 9 and 10"

SOCIAL HOUSING AND URBAN GROWTH

From the brief description of this scenario, we will reflect on what was the role played by the social housing projects in the construction of the city. And what is the role that it currently played in the reordering of this territory. The focus on public projects is framed by the scale of interventions, the importance as a reference for the private popular housing and the specificity of its promoter, the government, the main control agent of good construction and management of the city.

About social housing in São Paulo, we identified three major periods characterized mainly by a type of production and with a certain location in the city⁷. The first period that goes from 1937 to 1964: was characterized by small and medium interventions within the urban perimeter, the second, which goes from 1964 to 1985: was marked by the implementation of extra-large projects inside the metropolitan region; and

⁶ Ibid. p.41

⁷ Although urban and architectural quality has not been constant, the definition of these periods is more general in a sense of categorization of the production set.

the last period goes from 1985 to 2004: was characterized by the diversity of interventions located throughout the city.

The emergence of social housing in São Paulo, 1937-1964

Despite being a conservative government, the national policy adopted by Getulio Vargas (1930-1945) marked a crucial turning point on the theme of the popular dwelling, which was considered a key role for the realization of the industrial development strategy that the government planned for the country.

In 1937, this led to the appearance of a wide social housing policy. The government was responsible for financing and production of new housing, and also for price rental regulation in the private market⁸. Another interesting fact of this policy is linked to the formation of the national housing estate, once it had an access system based on the rent. The administration encouraged that these projects followed the principles of modern architecture and urbanism, although it hardly recognized them as an aesthetic value capable of transmitting an idea of modernity that they wanted to relate with the country.

Although the social housing policy of this period has been viewed as a means of implementing an industrial development policy, the implementation of a welfare state is not really intended. The experiences of this period are characterized by emblematic projects of the national architecture and urbanism.

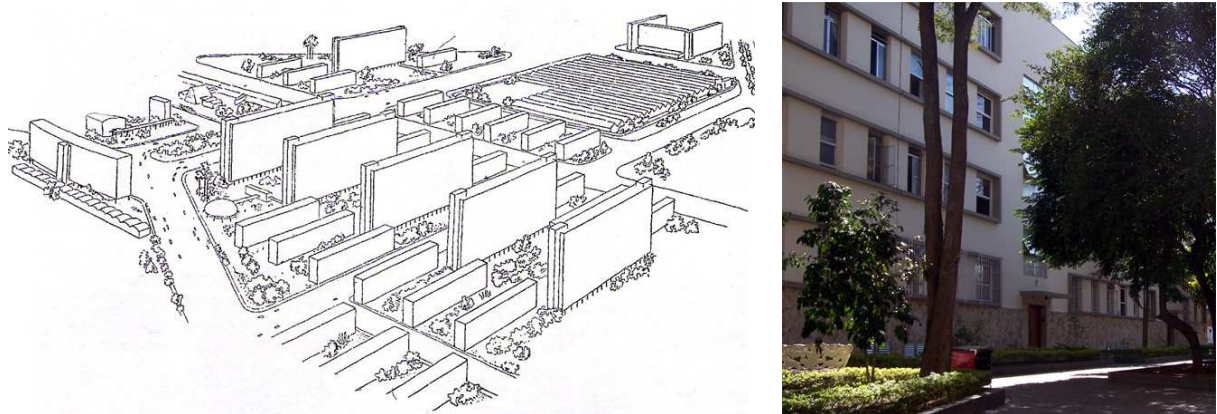


Figure 3 and 4 Várzea do Carmo Housing Complex • Atílio Correa Lima • 1942. Original sketch and actual view. Project area: 18.5 ha; Number of housing units: 4.038 (built 480 units); Projected population: approximately 22.000 inhabitants; Density: 219 unit / ha; Developer: *Institutos de Aposentadorias e Pensões* (IAP).

The residential project exceeded the scale of architecture and stood at urbanism, pointing to the possibility of transformation of Brazilian urban areas. In São Paulo, these projects, which were located on urban voids in the central region, completed the urban fabric and inserted urban facilities. The most ambitious operation was "Várzea do Carmo" projected by Atílio Correa Lima, in 1942⁹. "Fig. 3 and 4"

⁸ The set of events that contributed to the consolidation of this policy are the creation of federal and regional institutions responsible for the development of housing projects:

- IAPs, *Institutos Aposentadorias e Pensões* (Retirement and Pensions Institutes), in 1938, with national representation;
- FCP, *Fundação da Casa Popular* (Popular House Foundation), in 1946, with national representation;
- DHP, Departamento de Habitação Popular do Distrito Federal (Popular Dwelling Department of the Federal District) in 1946, serving specifically in Rio de Janeiro, that was capital of the country.

As well in 1938, the state regulated the sale of land through mortgages and from 1942 regulated the rental market.

⁹ The project was carried out partially. The 12 floors buildings and urban facilities provided, except for the school, they were not built.

Although numerically insufficient to solve the problem of housing shortage, the discussion of the residential amount and the urban quality were addressed in these projects through the development of topics such as:

- Changing the concept of inhabiting, that means understanding that this action involves an “inhabiting space” that exceeds the housing unit. This new idea caused the incorporation of new uses, in addition to the residential one, and the appreciation of the collective spaces;
- High densities, urban land and verticalization in central areas: were proposed spaces with a new urban order, which encouraged the collective housing and framing new scale relations with the existing city;
- Urban morphology and building type (the building and housing unit): these new forms of organization in the city were reflected in the typology of the building, for example with the insertion of linear buildings (echo of the international references). In addition were developed new forms of housing cell aggregation and new types of housing were researched;
- New project scales were expressed mainly in the open spaces with spatial sequences between private spaces, collective spaces and public spaces. In these sense, the concept of the neighborhood unit as a design tool was incorporated, although in incipient way;

The modern urbanism: a valid urban model, 1964-1985

This period was characterized by the military coup of 1964 and the impoverishment of the social housing discussion. In this year a new administrative and executive institution was created linked to the social housing and managed by a financial institution: Banco Nacional de Habitação – BNH (National Housing Bank). This new system dismantled the previous governmental programmes and the housing public stock was privatized. The housing policy, promoted by the Government between 1964 and 1985 and adopted by the BNH, chose projects with a spatial concept that refers to the Athens Charter, but without any of the possible qualities presented by modern urbanism, "Fig. 5 and 6". The new housing complexes have peripheral locations and the purchase of dwelling as the only alternative.



Figure 5 and 6 Itaquera II Housing Complex, 1977 – 1982. Number of housing units: 12.560. Developer: *Companhia Metropolitana de Habitação* (COHAB-SãoPaulo).

In São Paulo, this policy marks the territory so overwhelmingly, especially considering the size of interventions that were characterized by extra-large projects and built up to 15,000 units in a single residential development. Obviously the size of these interventions has a direct impact on their location in the city. In this sense, the 1972 zoning law strengthens this process by enabling the use of rural areas and improper lands (from the geomorphologic perspective) for the construction of social housing. In this period around 120.000 housing units were built. These interventions reproduced the precariousness of informal settlements with low levels of infrastructure, sole residential use and scarce public spaces. The Government was responsible for the reproduction, intensification and dispersion of a model of urban growth based on

commuter suburbs. In this context, architecture and urbanism are treated as subtopics vs. the numeric priority and forms of production¹⁰.

Although, at the same time the São Paulo's government developed, parallel to national policy, a specific housing policy, that would facilitate the production of massive housing, according to national guidelines but with urban quality. This policy is characterized by the research of a pilot project with a strong urban and social emphasis. From this project, a range of housing projects will be developed in the province. The team responsible for the pilot project was coordinated by the architects João Vilanova Artigas, Paulo Mendes da Rocha and Fabio Penteadó and highlighted by its multidisciplinary character of construction technicians, sociologists, educators and supply experts.

The result of this research was a project that emphasized three main themes: urbanism, technology (prefabrication) and the dwelling unit. In turn these topics sought to respond to two objectives: increasing the quality of the "urban standard" that was being applied to public housing projects and facilitate large-scale housing construction. "Fig. 7 and 8"

Zezinho Magalhães Housing Complex stands out at a moment that the modern ideology remained valid in Brazil¹¹ but severely depleted in other public residential developments. If in recent years the social housing interventions formed commuter towns, the project of Artigas, Mendes da Rocha and Penteadó, took on again the reflection of urban quality present in the projects of the first period.



Figure 7 and 8 *Zezinho Magalhães Prado Housing Complex* · João Vilanova Artigas + Paulo Mendes da Rocha + Fabio Penteadó · 1967. Original sketch of site plan and actual view. Project area: 130 ha; Number of housing units: 10.560 (built 4.680 units); Projected population: approximately 55.000 inhabitants; Density: 81 unit / ha; Developer: *Caixa Estatal de Casas para o Povo* (CECAP).

In this sense, the topics that took up again in the proposal for the *Zezinho Magalhães* project were:

- “The reformulation about the concept of inhabiting was decisive in the decisions making on the project. This determined the valorization of urban facilities and collective areas and the reservation of 50% of green space. The use of existing technologies allowed the decreasing cost and increased the quality of construction of public housing”¹²
- Urban morphology, building type and prefabrication: the determination on the prefabrication of the complex, designed from the structure to the furniture, justified the rationalization and repetition of

¹⁰ The Social housing will be the subject in which converges the solution of two problems: the need to reactivate the market of civil construction and the absorption of non specialized labour, which compromises the quality of projects and construction.

¹¹ Although ten years have passed since the design competition for the new capital of the country, the theoretical framework that underlies Brasilia continued valid in Brazil. And it is extensively applied as a conceptual urban layout, especially on projects which its dimension exceeds the architecture and reaches the town planning projects.

¹² Revista Acrópole, São Paulo, abril 1970, nº 372, p.33

the housing unit and consequently of the building. In this way the 10.560 housing units are equal. The buildings are a result of the addition of the housing units in line, two linear buildings articulated by a common stair make up the “H block”. Subsequently this solution was used extensively due to optimization of the circulation, with four apartments per landing.

- Neighborhood unit: In a different way than in the Atilio Correa Lima’s project, the neighbourhood unit has compositional relationships (established by the symmetry axis) and functional relationships. These relationships determine the sizing of the different facilities and their location in the complex. The aggregation unit is evident as an urban reference unit and not just as a formal unit.
- Periphery vs. downtown: In relation to the peripheral location of the complex, the architects defended it as acceptable, according to the plot relationship with the road system of the city, permitting a direct connection with public transport that would go inside each neighborhood unit.

Recognition of the existing city, 1985 · 2004

Although the production of social housing has been very irregular, especially between different policies developed by national, provincial or municipal authorities, we can say from the late 1980s, in São Paulo some actions began to exist based on the recognition of the existing city and the conditions of the population most affected by the housing crisis. After the collapse of the BNH in 1985, the change was to break with a single format for building new social housing and favour the diversity of programmes and actions.

NEW URBAN STRATEGIES: a view from social housing

In São Paulo the intense process of “metropolisation”, the contemporary city’s new dynamics and the population impoverishment are facts that are part of a complex reality with countless urban, social and environmental problems, as already described above. However the social housing today remains a point which converge different interests, linking the city, architecture and society. Undoubtedly, social housing projects and policies play a key role in the restructuring of the current urban territory. In this sense, from the late 80s, the challenge was to recognize the problems caused by this accelerated expansion and start a process of transformation of the built territory.

New urban planning instruments

In 1988, a legislative milestone indicating this process of change was the drafting of the new Constitution. It defines the obligation to all municipalities, of more than 20,000 inhabitants, to develop a master plan, aiming at the responsibility of urban growth to the Government and not to the liberal market. In addition in 2001 the “Estatuto das Cidades” (Statute of cities) was approved. “The Statute is a kind of summary of experiences, not only a new regulation, a “State of art” in the field of urban planning and regulation, because it incorporates many of the tools and new practices, which had been tested in many Brazilian cities”. Therefore, the Statute systematizes in the nationwide these different urban and tax instruments in order to curb the speculative process and the territorial exclusion. In São Paulo, two years later, the new “Plano Director Estratégico” (Director Strategic Plan) was adopted, which incorporates the new tools legalized by the Statute. Revision of the land use, mobility plan and social housing were considered priority subjects in the reversal of the process of exclusion. In this regard, the city is no longer divided into urban and rural area. In this way two macro-zones were established: one of environmental protection and other of restructuring and urban qualification.

But, the most relevant instrument about social housing was the definition of the ZEIS, Zonas de Especial Interesse Social (Areas of Special Social Interest). These zones are plots reserved exclusively for social housing. This usage may be given from the urban regularization of informal settlements, from the construction of new popular housing or from the recovery of degraded buildings. Also permits the provision of urban facilities, public spaces and local trade, necessities for daily life¹³. In these plots the new zoning allows different interventions than in the rest of the city and guarantees the construction of social housing.

¹³ *Plano Director Estratégico*, chapter II - IV. According to the plan, the ZEIS may be of four types: 1. Areas occupied by people in low-income, aimed at comprehensive urban recovery; 2. Urban voids suitable to urbanization; 3. Areas with underutilization of existing infrastructure; 4. Areas located in regions of environmental protection.

This happens in different urban situations where before it could not intervene, due to the lack of urban instruments.

Diversity of social housing policies and programmes

So, from the new guidelines it is possible to open new paths with different solutions in the field of social housing. Such as: multiple interventions of small and medium scale on empty plots in the downtown (with underutilized infrastructure); rehabilitation of empty buildings; rehabilitation of old housing complexes; slum urbanization and resettlement of inhabitants of risky areas and environmental protection areas. The locations of these projects extend throughout the city, in addition it has proposed alternative ways of production (with training programmes of self-construction) and different ways of access to housing (the social rental is an option for those families that could not obtain a mortgage). Undoubtedly, another important component in this process of transformation of the built environment is the development of mechanisms for citizen participation.

As an example of this new urban practice, we highlight two programmes that were developed within this legal framework and through which was sought articulate different public administrative sectors in an innovative way.



Figure 9 and 10 Guarapiranga Programme: Informal settlements in the margins of the Billings reservoir.

Guarapiranga Programme¹⁴ launched in 1991 has a strong environmental emphasis. It was formed with the objective to control, protect and recover springs areas and water-producing systems against the growth of shantytowns, "Fig. 9 and 10". The programme implementation occurs in a cohesive way between the municipality of São Paulo, the sanitation company (Sabesp), housing development company (CDHU) and the secretary of the province's environment.

The programme acts in the control over these settlement expansions and mainly develops interventions for the implementation of infrastructure, public spaces, urban facilities, social services and environmental recovery projects. The economic resources of the programme are the result of cooperation between the Government of São Paulo and the World Bank (WB).

Morar no Centro Programme¹⁵ had as its objectives: to ensure social diversity, to restore the highly degraded central area and to recover its symbolic and strategic meaning, including its architectural heritage. The programme implementation is done through the Secretary of Housing and Urban Development (SEHAB), which coordinates 16 different sectors of the town hall and 5 municipal corporations.

¹⁴ *Guarapiranga: recuperação urbana e ambiental no Município de São Paulo.* (São Paulo, PMSP, 2000)

¹⁵ *Programa Morar no Centro* (São Paulo, PMSP, 2004)

This recovery will be implemented through the construction of social housing in three major fronts: projects in empty plots, the renovation of buildings and the development of special projects. The first two involved a specific intervention developed on the plot, while the special projects included the restoration of a much larger area of downtown, "Fig. 11 and 12". The economic resources of the programme are the result of cooperation between the Town Hall of São Paulo and the Inter-American Development Bank (IDB).



Figure 11 *Morar no Centro* Programme: Interventions in the centre of São Paulo.

Figure 12 *Favela do Gato* on confluence of the Tamanduaté and Tietê rivers. Parque do Gato Complex stands out as one of the main operations of the Program *Morar no Centro*. Considered one of the special projects of the programme, this intervention initiates the transformation of a plot with 18 hectares, characterized as a public property with private use, as consequence of the invasions, promoted by its strategic position in the city. The project, located four kilometres from the city centre, raised the establishment of an urban park with social housing, which would take into account the ancient inhabitants of the *favela*.

FINAL CONSIDERATIONS

The brief description of this panorama tried to emphasize the importance of social housing in the construction of the metropolitan area of São Paulo. This influence can be positive or negative. Unfortunately one of the biggest problems of the strong administrative discontinuity in Brazil is the inability to accumulate experience. The result of this process in the city is a succession of unfinished projects. This leads us to the fact that good social housing programmes were consolidated only as isolated experiences. Meanwhile, the vast majority of public housing is still being built in accordance with formulas that prioritize the residential amount to the detriment of the urban quality. Anyway, to enrich the discussion we highlight these experiences that have sought to face this dual challenge, in different historical stages: “to construct the city” through public residential urban projects.

In the first period of social housing production, were developed residential projects able to complete and articulate the expanding urban fabric. If until 1930, the idea of popular housing meant to think about the row of houses distributed on the plot, the social housing projects developed since 1937 have proposed a radical change in relation to the concept of inhabiting. Through these projects it was possible to build

"residential unit" and an "inhabiting space" (a quality urban environment). Both understood as part of an inseparable whole.

In the second period, still characterized by an expansion process, but with metropolitan dimensions, the main priority was the construction of the "residential unit" in large quantities, causing a backward step in the change initiated by the previous policy. Furthermore, the self-construction was consolidated as the main solution adopted by the vast majority of the population that has not been able to access the purchase of a public housing. The result has been the consolidation of a fragmented and badly urbanized metropolitan territory formed by the dispersion of commuter towns.

In the third period, the challenge was to improve the "inhabiting space" that in the previous decades has not been contemplated. This involves the development of new urban planning instruments, new social housing policies and new mobility strategies. In this sense the diversity of solutions is fundamental in the transition from an accelerated and undisciplined expansion process to a conscious transformation process of the existing city.

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