

SOCIAL HOUSING AND THE GARDEN CITY: THE WORK OF ULYSSES HELLMEISTER AT THE INSTITUTE OF COMMERCE WORKERS INSURANCE

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ABSTRACT

This study aims to analyze the trajectory of an ideally, which had as an achievement the low-rent housing project "Garden City for Commerce Workers", located in the neighborhood of Olaria, Rio de Janeiro, Brazil. This worker's housing was built by the Institute of Commerce Workers Insurance (Instituto de Aposentadoria e Pensões dos Comerciantes - IAPC), between 1944 and 1945, based in the design conceived by its Engineering Division, coordinated by engineer Ulysses Rodrigues Hellmeister. We will show how the social housing approach has changed from a technical, hygienic and spatial problem to a social and political issue, by the detailed study of the performance of this engineer. This issue will be understood by analyzing the historical context, the debates and disputes made around it, between the decades of 20's and 40's, important to comprehend the political objectives of this period. This understanding is important to substantiate conflicts and to evoke the contradictions of the period, elucidating various concepts in which housing policy was based between 1930 and 1964. Thus, to insert the "Garden City for Commerce Workers" as a historical problem is important to understand a subject so little studied. We will also briefly study other designs from the Engineering Division of IAPC to comprehend how worked the practical field of architects and engineers, specialized on social housing projects. This approach is inserted in the historiography of modern culture, which seeks to recover the performance of professionals that worked with this theme. This paper has as goal to demonstrate how this interpretation is important for the perception of a part of the history of Brazilian modern architecture and urban planning that so few know.

THE GARDEN CITY MODEL AND ITS THEORICAL AND PRATICAL APPLICATIONS AT BRAZIL

The term 'garden city' emerges in 1902, when Ebenezer Howard edits his book "Tomorrow, a Peaceful Path to Real Reform" (1898) with a new title "Garden Cities of Tomorrow". The main issue of this book was not to conceive a spatial model, but a utopia¹: an autonomous town, with community of manageable size, surrounded by an extensive agricultural belt and with high rates of green areas. This was an alternative to overcrowding and disorders of industrial cities. This model was applied in Letchworth, an urban design made by two architects named Raymond Unwin and Barry Parker, which had its construction started in 1903.

In Brazil, the first applications of the garden city model occurred in the mid-1910s, at the city of São Paulo² by the *City of San Paulo Improvements and Freehold Land Company's* initiative. The garden city proposal applied by, the so called, "Cia. City" was quite different from Howard's model. In fact it was more a 'garden-neighborhood' or a 'garden-suburb' for the São Paulo's rich class. The two first suburban lots - *Pacaembu* and *Jardim America* (America's Garden) - were designed by Barry Parker and were a success, followed by *Jardim Europa* (Europe's Garden) and "City Lapa". The Cia. City's initiative was contemporary to European experiences of urban design applied to residential districts in Germany, France, Belgium, Italy and the United States (BENÉVOLO, 1976, 360) However, such applications have distanced themselves from Howard's original proposal, which

¹ The Garden City is one of the urban planning model that integrates urban and rural areas and organizes them in a network that leads to a harmonic social development is one of the utopias of the nineteenth century and the early twentieths (Fishman, 1977)

² At the beginning of the Twentieth Century, the capital of Brazil was Rio de Janeiro, known as the Federal District and São Paulo, the capital was the state called by the same name, was becoming the second large city of the country and the main industrial town.

provide for a structural transformation of moral relations and working conditions of the urban society.

Ulysses Rodrigues Hellmeister (1898-1968), as the leader of the Engineering Division of IAPC³ between 1940 and 1948, was responsible for the implantation of a housing model. He conceived the housing prototype that combined the hygienic and technical precepts of his training in civil engineering at Mackenzie College (1915 - 1920) with the elements of an urban planning inspired by the garden city's ideals. His model was called 'Garden City for Commerce Workers' and has been applied in three Brazilian cities: Recife, Rio de Janeiro and São Paulo.

This would not be the first proposal for working-class housing based on Howard's garden city model, in Brazil. In the late 1910s, the engineer-architect Angelo Bruhns publishes, in major engineering journals, a worker's town design for those of the Navigation Company of Niterói⁴.

Looking towards the housing projects of all the Institutes of Insurance (IAPs)⁵, it's remarkable the adoption of garden city's model in most of them. The goal of the actions of the IAPs was to consolidate the labor rights of urban workers in Brazil, an important aspiration of the Modern National State after the 1930 revolution. In all those IAPs' housing projects, the main element of the adopted garden city model was the picturesque drawn of the streets. An example is the Waldemar Falcão Workers Village (IAPETC⁶), located in the neighborhood of Ilha do Governador (Governor's Island), Rio de Janeiro; the '*Passo D'Areia*', Porto Alegre, State of Rio Grande do Sul (IAPI⁷) and the Guiomar Village in Santo André, State of São Paulo (IAPI)

No other institute has applied the garden city model as part of its construction program as did the IAPC through its Engineering Division when led by the engineer Ulysses Hellmeister. He considered all the complexity of the housing issue, even when some changes happened and he was aware of the country limitations on those days. His approach to this subject occurs firstly based on hygienic, technical and spatial concepts, which in the time will show them self as underprovided to undertake all the difficulties implied in the social housing. We will try to show this transformation by analyzing two different kinds of productions: the text about the housing project and the design proposal. This is not a simple pragmatic issue since that social and political questions are implied and need to be added to make the solution work. By comparing the proposition of the "Garden City for Commerce Workers" built in Olaria to its design, which was the experience where all the precepts of Hellmeister's model were applied, we are able to verify the complexity of the social housing project.

FROM AN HYGIENIC AND TECHNICAL URBAN PLANNING TO THE MATERIALIZATION OF A SOCIAL HOUSING POLITIC

Between 1920 and 1944, the engineer Hellmeister was contemporary to some events - his training as a civil engineer, the realization of some reunions and political transformation in Brazil - that can attest an evolution of the housing idea. Different contexts that allowed him to elaborate an important model for a popular housing project, so that the financial viability of these enterprises would not compromise the excellence of conditions and the housing comfort, as well as the offer of green and collective areas. This theme was discussed during the 1st Housing Congress, held in May 1931 in São Paulo, and developed in September 1939, during the Pan-American Popular Housing Congress held in Buenos Aires, Argentina.

The sanitary approach prevailed in the 1st Housing Congress, since it was present in the training of civil engineers and architects in those years. These professionals

3 In Portuguese the 'Institute of Commerce Workers Insurance' is 'Instituto de Aposentadoria e Pensões dos Comerciantes' which can be also translated as 'Institute of Retirement and Pensions for the Commerce or Trade workers' or IAPC. This Institute was created by law in 1936, by Getúlio Vargas administration, which was the first president to implement labor laws.

4 Niterói is the city located across the 'Baía de Guanabara', near the city of Rio de Janeiro. In 1920, there was no bridge to cross the 'baía', which was made by boat. Niterói was the capital of the state of Rio de Janeiro.

5 In Brazil, the Institutes of Insurance are created by division of labor, divided by the type of work. Implanted in the law 'Eloi Chaves' (1923), the first institute to be created was the 'Estivadores' (Dockers), then the Transport and cargo, the commerce workers, the industrial, the Maritimes and the bank employee. The investments in housing projects were allowed by the government after 1937. There were 3 kinds of plans: Plan A - the construction of large low-rent housing; Plan B - the loan for other building companies to built in properties owned by IAPC; Plan C - the mortgage loan plan to built any type of building or enterprise, this was the plan used to construct Brasília.

6 The IAPETC was the Institute of loading, transports and cargos workers Insurance.

7 IAPI was the Institute of Industrial Insurance

showed housing prototypes in which the main concern was with the correct sunlight and ventilation of the units. Besides all those engineers and architects propositions, a housing typology study named "cross system" was presented by a sanitary physiologist, based on "modern hygiene" theories. For him, hygienic amenities for housing projects were sewerage provision, water supply and, streets with pavement. This is the reason why the garden city model was preferred, since it offered more space and sunlight for the individual home

These hygienic factors were added to those of economic order. There was a consensus that the solution for worker housing should be economical and healthy. This objective required the rationalization of building methods, achieved by the employment of mass production methods and standardized building materials, placing the beginning of what would be the context of a constructive approach in the 1960s, when there was an industrial development perspective in Brazil (Freitas, 2005 and Koury, 2007)

It is remarkable the prevalence of the hygienic approach to which the garden city model corresponded efficiently. At the paper "Popular House - Garden City", Marcelo T. C. Mendonça, an engineer from Rio de Janeiro, suggested, as a dwelling alternative to slums (*favelas*), the implantation of workers "garden-neighborhood" at suburb area: "*in Rio's broad front, there are large and extensive land, that right urban planning, allows the large scale construction of individual houses for employees, workers and poor classes*" (Mendonça, 1931, 141) These neighborhoods should be a public initiative, with all amenities and close to public transport.

The garden-neighborhood model was considered ideal, since it seemed to minimize monotony of the large housing developments by avoiding the wretched and overcrowded dwellings - known as "*casas de avenidas*"⁸, slums and "*cabeças de porco*"⁹ - and to allow for each employee "*through the individual house(...) to have his own front garden and his own backyard...*" (Mendonça, 1931, 143) Mendonça's text represents the discussion about the popular housing in Brazil's Federal Capital by the early 1930s, especially regarding to which type of housing would be offered: one-story single-family houses or apartment buildings. The excerpt transcript below shows Mendonça's opposition to the second option:

"Mr. Lindolfo Collor that is indisputably up to his actual placement, certainly, will draw the attention of the committee responsible of studying this issue for suburban areas. These have vast land, which planned can allow building a large number of individual houses for workers and employees. It will be an absurd to built homes like the "Workhouses" and "Miethscasernen", and certainly, the Mr Minister will be against the building of rows of these collectives housing, which do not correspond to the poor classes manners and to our environmental conditions" (Mendonça, 1931, 147)

In the Municipal Journal of Engineering, the official publication of the Federal District government, Hellmeister published three papers about the housing subject: "*Garden City for Commerce Workers - Olaria - Federal District*" published in April 1944; "*The large housing projects influence on the economic housing problem*" in January 1945 and "*Popular Housing*", in July 1947.

In the first paper, Hellmeister emphasized that, besides the economical aspect, the benefits of the housing units integrated to 'nature' allows the healthy for their habitants, by providing enough sunlight and ventilation. He presented the studies elaborated by relating building height with the free space of streets and squares. As Mendonça, he placed great emphasis on individual home for housing project as ideal. However, he introduced the collective property of the land, an innovation that could be achieved: "*By abstracting the classic division of the land, we consider the area as a total and divided it by the two-story high houses, but with total independence one to another*" (Hellmeister, 1944, 57) Nevertheless, he maintained some principles of the individual houses. This proposal suffered several critics by those who refused to accept the innovation that the collective property of the land represented. He had to justify it, in an objective way, by demonstrating the economical advantages of this proposal accomplish by moving away from most of the "classical methods in use":

⁸ The 'Casas de Avenidas' were small room' rows, facing a kind of narrow street that worked as a common space.

⁹ This was how were called the tenements in Rio de Janeiro.

"... it (the Garden City for Commerce Workers housing) wasn't the result from a utopian dream; it was the consequence of a economic requirement coupled with the vital need to provide a human habitation, able to attend a class so laborious as that of Commerce workers, and the scope of their possibilities" (Hellmeister, 1944, 58)

For Hellmeister, in regard of these questions, it was impossible to a commerce employee to afford an individual house. He considered the relationship between the worker's low-wage and the total design price (land + construction) He realized that the solution was the community:

"It should also be noted that the tendency of the most progressive nations is to assist and to support the worker and the community. How would that be possible isolating it on a piece of land surrounded by fences, which invites him to stay away from this community?" (Hellmeister, 1944, 58)

The adopted urban planning standard, allowed increasing the offer of collective areas in 80%, reducing sensibly the participation of the land cost in the total cost of the unity. Besides the hygienic advantages demonstrated in the shadow study that illustrates the paper, the proposed model was mainly justified by the economics of the urban planned area achieved by the high density of the units and by the consequent green areas increase of the project. This economy was applied on the offer of communal facilities. So, the Garden City for Commerce Workers model would allow combining affordable housing, better urban planning standard and communal organization consistent with the assistance project. This model assembled in a unique way the "new concept of labor rights", as it was intended by Vargas's labor populism policy.

The second paper seeks in the housing projects well succeeded in Stockholm (Sweden), elements that could justify the 'Garden City for Commerce workers' enterprise. The Swedish case was an example of how the zoning could be employed to overcome the price of the land problem, the real state land speculation and to define limited zones for social housing, which might be undertaken by government interventions. Hellmeister imagined the "cellular cities" as: *"autonomous housing projects and villages which the location must be linked to easy transport for the working place, a main question for the large public transport companies..."* (Hellmeister, 1945, 20) The suburb configuration in Rio de Janeiro could make possible the necessary investments to achieve the housing projects enterprise, as Hellmeister forecasted: 40% for the acquisition and land planning and 60% for the houses construction.

The last paper was a description of the industrial condition in England, in which Hellmeister saw answers to the density and the house standard question. In 1947, all the Institutes of Insurance were having difficulty to expand their housing operations due to the high interest rate and the impossibility of improving the workers mensal wage. He realized that the only solution for this problem was the use of standardized constructional elements, industrial mass production and the provision of materials made by local industries.

In this case, Hellmeister presented the advantages of the soil cement technique that could make housing affordable to the worker's low-wage and implanted in all parts of the country. The technique allowed circumventing the construction materials high price, because of the World War II:

"In the soil cement industrial proceeding, environment, commercial, economic and social elements are not problems and difficulties. It is independent from the bonds that hold the classical methods to certain and irremovable conditions. We can easily accomplish this industrialization with success in the Capital of the Republic, as we could in a small town, where the human resources are not expertise, or even more scarce. This achievement is possible because it is easy training the workers and makes them qualified to serve as good teachers and mentors anywhere in the national territory" (Hellmeister, 1947, 141)

Hellmeister elected the elements from the garden city model that could help him to achieve the building of large housing projects, provided with green spaces and a differential urban planning, employing rationalized building proceeding and by cheap materials industrialization as the soil cement. These procedures were implemented in three housing project: Recife Commerce Worker's Housing (1941),

Olaria Worker's Housing, in Rio de Janeiro (1944) and Perdizes' Housing, in São Paulo (1950)

The first project that adopted Hellmeister Garden City Model was built in Recife and was, in fact, the pioneer experience of IAPC. Implanted in the neighborhood of 'Casa Amarela', it took between 1941 and 1942 to its conclusion. The Recife Worker's Housing represents the assembly of all the discussions about the housing issues during two decades. The elements that were applied on Recife project were part of his ideas and the failure of this attainment was the cause of his demission from the post of Director of the Engineering Division. In June 1941, in an interview to a daily newspaper published in Rio de Janeiro, he said:

"to an interesting modern technology category this building will obey, under the study case in process, for Recife application, the houses of this project, which will outline the 'Commerce Workers Village', may be actually built, each one of them in a short space of eight days". (Hellmeister, 1941, 7)

The 'modern technology category' cited by Hellmeister was the use of precast concrete made with soil cement. These was not employed in Recife, but would be later used in the Olaria Garden City for Commerce Workers Housing. It was employed to make the blocks that built up the masonry structure of the units (Concrete, 1943, 27) However two innovative elements of Hellmeister garden city model were inaugurated in Recife housing project: the two-story high independent unit row and the separation between walking ways and streets.

The period separating the projects of Recife and Olaria to that in Perdizes determines Hellmeister's model to become more mature, through his own experience as the leader of Engineering Division of IAPC. In the papers published earlier, especially *"How the Engineering Division of IAPC works, plans and executes"* (Hellmeister, 1941, 77-85) it is demonstrated his concern with practical and hygienic aspects (sunlight and ventilation) of the units and with the best constructive solution suitable to the low-budget and to the industrialized building process. In the paper *"Popular Housing"*, he discussed the political, social and economic impacts of popular housing: *"The high price of land and its urban planning intervention with the high price of labor and buildings materials make the housing unaffordable for workers in general."* (Hellmeister, 1947, 137)



Figure 1 The urban planning design for the 3 Garden City for Commerce Workers. The first one at the top is the Recife's housing project; in the middle is Olaria's project and at the bottom Perdize's project.

Although Hellmeister's standard housing block was not an individual house neither an apartment block, it was consonant with the standard of innovation adopted by the institutes in their first years. But, in the end, he realized that besides the technical, economical and planning issues had been solved, it was imperative a social action integrated to architecture. This aspect defined the popular housing not only as a hygienic, technical and urban planning problem, but an welfare state policy, that included "housing, food, health and education" (Hellmeister, 1947, 141)

Hellmeister's statement was a coherent assembly of ideas and models discussed in several congresses, as the Pan-American Popular Housing Congress (Buenos Aires, 1939), the Economics Housing Journey (Rio de Janeiro, 1942), and the Architecture and Urbanism Congress (São Paulo, 1945) The engineer, that became a specialist on this subject, soon realized that a housing project was not just an achievement of the best architectural or the best urban planning, but was a social, economic and political issue.

Since the 1st Housing Congress, several professionals have demonstrated awareness of a housing policy articulated to urban planning. The subject will be taken up in subsequent meetings and will be fully formulated in the Hellmeister speech made in 1947:

"Finally in 1947, the same author states that the housing problem is universal and that in many engineering and architecture conferences have been debated, concluding that the discussions have been evolving and that the housing issue is no longer seen as a hygienic and constructive problem,

but mainly from the point of view of political, social and urban" (Rezende, 1999, 54)

OLARIA GARDEN CITY: FROM AN IDEA TO ITS SETTLEMENT

In March 15, 1946, the second "Garden City for Commerce Workers" was inaugurated after two years of construction (IAPC's JOURNAL, 1952, 12), in the neighborhood of Olaria, near to two major roads that goes to downtown of the city of Rio de Janeiro - the Brazil Avenue and the Leopoldina Railway Transport.

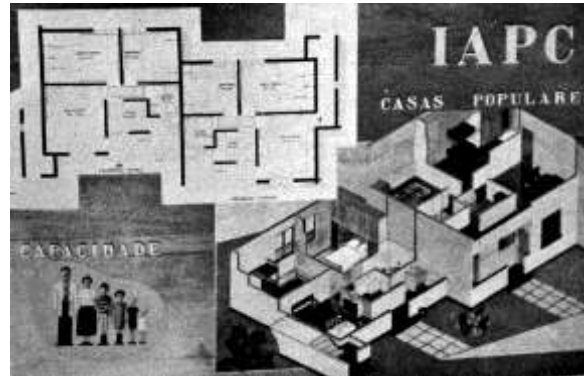


Figure 2 Olaria's housing typology, published in April 1944

The typological solution proposed was a two-story high independent unit row allowing the rationalization of hydraulic installation for each 4 units, by their common wall. The access to the ground floor unit and stairs, that access the second floor unit, were located on the each edge block. Each individual access had the intention of avoiding the conflicts of the communal use of collective areas and to characterize the individuality of each home.

The rows were designed in such a way that the distance between them and the unlined arrangement of the units would allow the best sunlight to the rooms. This was only possible because the large dimensions of the land. Each row had 8 identical houses, grouped 4 over 4 and was symmetrically disposed to form a small square with a shape of a diamond. This square organizes the social life in successive gradations of closeness. In total, there were sixteen squares, divided into three groups, and with social facilities.

The main roads and pedestrian ways had adequate dimensions for different types of use and the greater offer of green areas, allowed an exemplary application of hygienic premises and the Hellmeister's garden city model. The design previewed only one principal street for vehicles, much wider than the others, that were designed for pedestrians only.



Figure 3 A view from the main street and the two-story high independent units row in 1952

The main street surrounded Olaria Housing and goes to all the social facilities, located in the center of campus, around a circular plaza. The school, placed with great urban emphasis, marks the axis of the main street and the others facilities, as workers recreation, market, ballroom and health care define the boundaries of the square. It is remarkable the variety of facilities, in special the first collective laundry provided to a housing project in Brazil.

The housing units were rented with modern furnishings, design to be placed in the minimum spaces of the rooms, ensuring their efficiency. The Institute was the

owner of the buildings and this state had guaranteed the integrity of the architectural and the urban planning. After 1964, the units were sold to their inhabitants that intensified the process of adulteration. The open space was partially occupied by the ground floor expansion, corrupting the architecture and urban planning solution and the originals qualities of the project.

The importance of Olaria Worker's Housing was several times remarked on the papers publish on the IAPC's Journal. The picturesque and suburban aspects were often valued at the time, as well as the contribution of social service work. Olaria Housing was also an example of social assistance applied in innovated housing project; it intended to integrate the workers to the urban society through the transmission of moral values (Nascimento, 2008) In this project, the worker and his family had full assistance, like, kindergarten, nursery for baby, school and playground for children, medical and dental care, manual crafts courses that encouraged the development of skills in children on extra-class schedules and cooking, sewing, knitting and embroidery classes for women to ameliorate the family budget. There were also a nightclub and a library.

Hellmeister's garden city combines elements of the modern program of housing project - defined by the second Modern Architecture International Congress: "The minimum existence" (Existenzminimum) held in Frankfurt, Germany (1929) - which seek the rationalization of housing proceeding and a functional regard to the household chores. Howard's principle of merging urban and rural elements was applied on the planning of the open space. This paradigm inspired Hellmeister and other of the most paradigmatic architectural avant-garde proposals for social housing of the twentieth century, such as the workers housing project in Frankfurt and the *Unité d'Habitations*, proposed by Le Corbusier. In Brazil, there were some restriction to this ideas and restriction to the parameters of the modernization of the European liberal society that couldn't be accepted by the Modern Government in Brazil.

THE ENGINEERING DIVISION OF IAPC AND THE IMPASSE BETWEEN ARCHITECTURE AND ENGINEERING

One of the four sections of the Department of Retirement Funds was the Engineering Division, which was composed by three sections: urban planning, architecture, buildings and evaluations (IAPC's Journal, 1941) The Engineering Division was responsible for all projects built by the Institute (headquarters, hospitals, schools and facilities buildings), where worked engineers and architects.

Until the beginning of the 1940s, it was not a priority of the Division to build large low-rent housing. The funds were used to "empower the associated to build, to acquire or to release of dwelling house and to build the headquarters buildings (Hellmeister, 1940, 29) Between 1940 and 1948, Ulysses Hellmeister was the leader of the Engineering Division of IAPC. At the same time, others professionals worked there, as the architect Carlos Gaston Tassano - the successor of Hellmeister - and the architect Jayme da Silva Telles, Teixeira de Freitas Batista, Milton Ferreira Vianna, Francisco J. S. Werneck.

The relationship between the civil engineer Hellmeister and the architect Tassano was not always friendly. There were differences between their housing issue approaches. In 1940, there were only four architecture schools in Brazil: two in São Paulo (Polytechnique School of São Paulo and Engineering School of Mackenzie College), one in Rio de Janeiro (Fine Arts National School) and one in Belo Horizonte, Minas Gerais (Architectural School of Minas Gerais) The different aspects of their training contributed for the divergence between the civil engineer, undergraduate at Mackenzie College and the architect undergraduate at the Fine Arts National School.

We can see the change of direction of the Division by comparing the two projects for the 'Single Commerce Worker Palace', both design were conceived by Tassano. The first design proposed, made in 1941; remembered some characteristics of Marcelo Piacentini monumental modernism, and the second version, published 10 years later, was a larger building with strong entrance design affiliated to the structure design proposed by Le Corbusier for the great hall of the Palace of Soviets (Moscow, 1931).

Although this newly affiliation to Le Corbusier architectural ideas, it would not be enough to Tassano implement his alternative housing model - an apartment block -

to Hellmeister's Garden City for Commerce Workers. Tassano model wasn't able to ensure the architectural and urban planning quality of the housing project and, at the same time, to guarantee an increase needed in the building of economic housing. After 1948, the equation that related quality (architectural and urban) and low-cost achieved by Hellmeister's model in Recife and in Olaria, wasn't kept. At Tassano leadership of the Engineering Division, it was more important the number of unit built then this equation.

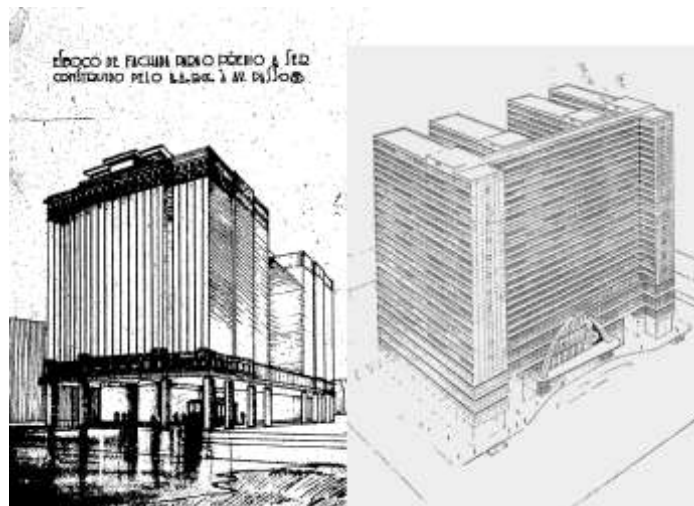


Figure 4 The 2 design proposals made by Tassano for the Single Commerce Worker Palace, the first one (in the left) was published in April 1941 and the second (in the right) in August 1951.

The existence of several proposals inside the Engineering Division of IAPC was an exemplary case of the transformations and maturity of some ideas, which took place in Brazil after 1930s. The social housing constituted an experimental field, which was achieved by the discussion made in several congresses and by all the housing models conceived. It was the place for architectural design experimentation: typological and technical. It would make possible the formulation of a housing policy, one of the main questions for Vargas's Government. In this matter, the Olaria Workers Housing is an important architecture and city planning national heritage. Hellmeister Garden City for Commerce Workers model represent an alternative to the Hegemonic Modern Architecture Brazilian Project, which had as landmark the building of the Ministry of Education and Health, designed by the architect Lucio Costa, Niemeyer and team in 1936.

THE ACTUALITY OF HELLMEISTER'S MODEL

Olaria Garden City for Commerce Workers model is, today, a pleasant and safe neighborhood. The absence of streets is an obstacle to the penetration of vehicles inside the project, allowing the maintenance of open spaces and the safety of children, which can play ball in the squares and the sports fields.

The vulnerability of the model is the architectural design. The limit of the proposal lies in the vulnerability of the architectonic. The dubious typology, between an individual house and an apartment block, helped to accelerate the private appropriation of collective open spaces by the inhabitants of the ground units, who wished to expand the property. The maintenance of the original architectural and urban planning depended on the control of the project by IAPC. This condition collapsed along with the sale of units to their residents. In this case, the lack of demarcation of the limits of each property and an expansion plan or effective limitation for the units, would have helped to avoid this transformations. Some facilities building as the school, the health clinic and the collective laundry were closed. There are still working the Inhabitants Association, the market and gymnasium.

It is remarkable the variety of perspectives of housing models, which had implications in the field of urban planning, building techniques and in facing a housing policy. The architects and engineer protagonists of the social housing debates in Brazil - leaders of the engineering divisions of the institutes - were aware of the European debates about the renewal of architecture and urban

planning. Each professional was influenced by a different modern thought when he conceived his own housing model. All these models are part of the discussion of architectural modernity understood as a plurality of orientations that composed the Modern Architecture International Congresses. There are other factors that determine this plurality and it is related to environmental facts, as particularities of national problems. Olaria Garden City for Commerce Workers is an exemplary case.

Hellmeister's model was part of initiatives that tried to harmonize the contradictions of Brazilian urban society, when the industrialization process and the urban growth were becoming problems. The government assumes the task of providing welfare to assure the reproduction and maintenance of the labor force. He acted with discipline, overseeing and dominating the workers. These actions are to be of great importance in implementing the assistance program for urban workers in contrast to their autonomy in political mobilization, particularly the Communist Party (Mavigner, 1948)

Although, Hellmeister's garden city model is different from Howard's garden city, it fulfills the role of harmonizing the social emerging contradictions, trying to join the housing demand with the quality of the architectural and urban planning design. The public nature of the initiative, its character as a residential district for commerce workers and the integrated in the country's development context differ Ulysses Hellmeister's model from Ebenezer Howard's one.

Hellmeister was aware of all the complexity of the housing problem. He paid attention to all the possibilities of the country in those years and he faced with great objectivity the challenge of reconciling economic resources with architectural and urban planning quality. That did permit to overcome factors such as workers low wages and the incipient building industrialization condition, when he was working in the IAPC. He set the building technical innovation in service to the overcoming of the social conflicts and solving the housing problem. The rational, objective and pragmatic approach was able to take a broad view on a large scale housing policy. In the housing project there was included the provision of public amenities and social services, characteristics of the labor populism action on the urban housing. Hellmeister let the leadership of the Engineering Division of IAPC because his ideas failed. In the late 1940s, the quantity of dwellings units built was more important than their quality to the Federal Government. Hellmeister's ideas became utopia, confronted to the new political interests and to the increasingly growing need for housing.

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