ABSTRACT

This work attempts to consider some basic principles of structural design and material properties of bricks and brickwork to carry out the architectural design of a complete building in structural masonry. The paper deals with the architectural conception itself, including design requirements, walls layout, and the simplification of the design. Design and detailing including modular planning, door and window openings, service design, facade and aesthetics are also discussed. It is shown that a clear understanding of the construction process together with the flexibility offered by the material can contribute to a better use of structural masonry.

Key words: Housing policy, housing deficit, housing policy in Brazil, socio-spatial segregation, housing system.

Introduction

Adequate housing as an important component of the right to a proper standard of living, as originally stated by the Universal Declaration of Human Rights, in 1948,
and more recently by the Habitat II Chart, in 1996, is officially accepted but not pragmatically implemented. Despite official declarations, proper access to urban land in Brazil, and speculatively in other developing countries, is undermined by the consideration of the housing unit as a financial asset and by its total submission to market laws.

This paper analyses the principles and legislation that have guided general changes in public policies and the way housing policies evolved in Brazil in the beginning of the 21st Century. The scenario behind this discussion is the ‘Projeto Moradia’ – the National Housing Project, established in 2000 – and the new National Housing Policies, established in 2007-2008 for the Ministry of the Cities, Federal Government. The review on the several public policies adopted by the country intends to emphasize the connections between governmental agencies performance in operating the national low income housing system and the economical and political interests behind this performance. Preliminary conclusions suggest some ideas in terms of a new national housing agenda, social priorities and new challenges to local governments and social movements.

For The Right of Housing

In the threshold of this new century, the Brazilian housing problem revealed as one of most serious ones amongst the most relevant social issues in Brazil. This problem if aggravated, fruit of the convergence of adverse circumstances that frame its determinatives, in special as consequence of the poverty and urban misery aggravation that had started to characterize the social scenario of the country. The housing problem if configured, also, of the combined recurrent situations, especially institutional practices that had been taken, the effect, throughout some cycles, where attempts of some resolutions had occurred during many cycles, based in governmental plains, programs and projects, inadequate when collated to the necessaries solutions. The overcoming of the Brazilian housing problem demanded a new equation in public policies. In the new perspective, based on the right to the worthy housing, the ‘Projeto Moradia’ – Housing Project appeared and, as a consequence, new national housing policies have appeared in the country. It is on the new perspective, created since 2000 and facing Brazilian housing problem that this text is about.

Housing Project: National Housing Policies origins

The Project Housing, developed between 1999 and 2000, is resulted of a plan to decide the housings problems in the country, designed collectively for diverse social sectors such as private sector, financial technicians, technician, socials movements, university and Government members, politicians and specialists on housing, urbanism and environmental sanitation. By means of the joint efforts of diverse actors, this
Project has tried to demonstrate how an articulated action - where the government, moved by a strong political, had a strategic coordination role - can generate significant results in the solution of one of the biggest national problems, of great relevance and impact in the conditions of Brazilians life. The Housing Project was carried through by Citizenship Institute, under the coordination of Mr. Luis Inácio Lula da Silva.

The Housing Project [1] started of the premise of one of the problems most serious of the country: more than 50 million Brazilians do not have access to the housing or live in conditions infuriate in Brazil (to see table 1). The Housing Project started, also, of the premise that Worthy Housing is a social right of the Brazilian citizens. Today, this right, approved in 2000 by City Council, is considered as a social right in the Federal Constitution, presupposing application of public allowances, necessary structure and conditions that each Brazilian citizen has access to the Worthy Housing.

### Table 1 Housing deficit in Brazil

<table>
<thead>
<tr>
<th>Regions</th>
<th>Housing Deficit</th>
<th>% - total of domiciles</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>848.696</td>
<td>30,2</td>
</tr>
<tr>
<td>Northeast</td>
<td>2.851.197</td>
<td>25,0</td>
</tr>
<tr>
<td>Southeast</td>
<td>2.341.698</td>
<td>11,6</td>
</tr>
<tr>
<td>South</td>
<td>678.879</td>
<td>9,4</td>
</tr>
<tr>
<td>West Center</td>
<td>502.175</td>
<td>15,9</td>
</tr>
<tr>
<td>Brazil</td>
<td>7.222.645</td>
<td>16,1</td>
</tr>
</tbody>
</table>


The Housing Project, from these premises, vein to bring to the light that exists in the current state of affairs, the possibility to offer, of concrete way, Worthy Housing for millions of Brazilians who do not have access to the housing policies. Beyond this base line condition of Worthy Housing and respect for a social right expression of their citizenship, other lines of direction had been established:

- the subordination of the housing policy to the urban and social policies in Brazil, by means of one housing policy articulated to the urban policies and to other political areas related to the physical structure of the city (urban remodeling, sanitation and transport) and to the social policies, being part of a strategy to face social exclusion and the violence;
- the guarantee of the social purpose of the urban property, trough urban policies instruments implantation and the improvement, at national, state and municipal level, with prominence for the Statute of the City, that guarantees the social use of the urban ground and fights the real estate speculation;
- the State as indispensable agent in the housing issues;
the national management and financing, by means of the implantation of an institutional framework for housing area that establishes with clarity the Federal, States and Cities competency, guaranteeing a Housing Found constitution and unification credit granted procedures;

the popular participation and social control in the housing, with the guarantee of mechanisms and instances of participation - including representative of the governments, the users and the productive sector - in the formulation and deliberation of the policies, in establishing priorities, resources allocation and implementation of the programs, by means of the creation of Housing Councils and Conferences, in a compatible way regarding other participatory process, such as Participative Budget;

the decentralization in the credit granted and housing programs promotion and facilitation of all the necessary procedures for housing policies implementation;

the steady and permanent sources of resources for housing, for the creation of sources of resources for the promotion of one policies of financing and maintenance of subsidies, such as Working Time Fund (FGTS) and Federal, State and Municipal budgets, trough a “mix” of onerous and not onerous resources to direct the subsidies for the sectors really needed;

the subsidy for the low income population, by means of the establishment of a financing system that guarantees subsidies right-handers, with not onerous resources (budgetary), for the lowest income sectors, adjusting the installments to beneficiaries payment capacity;

the social, economic and environment support as basic requisite of any housing intervention, searching the compatibility between guarantee for the right to the housing with the environment preservation and the respect;

the housing planning as prerequisite for intervention, trough an integrated housing plan (in National, State and Municipal level), as basic requisite to financing plans access, preventing punctual and non priority interventions;

the diversity of projects and programs, trough development of regional and specific alternatives for each type of housing problem, taking into consideration the characteristics of the local population, its economic and urban organizational forms and conditions, preventing standardized solutions and flexibility of regulation and norms, in way to take care of the necessities of the different types of intervention;

the conditions to facilitate and to decrease costs of housing production in Brazil for the public promotion and the market, without neglecting of the quality of the housing, the respect to the environment and the lines of direction of urban policies, the legislation of housing production, simplifying the approval procedures, reducing the costs;
the stimulus for the public administration and the self management, for intermediary of the support to individual or collective initiatives of the population to produce or to improve its housing, as well as the incentive to the formation of not state promotional and financial
agents, such as cooperative and communitarian associations, in the construction of the housing programs;
the stimulus for the private sector for average income level (more than 10 wages), searching to develop the real estate market and to reduce the pressure on the public resources, priority destined to the low income;
the joint of one national development policies of job creation;
the stimulus to technological development, by means of partnerships with university and organization of research aiming development of some alternatives of lower cost, better quality and productivity in the housing production;
the support the formation of social and technical agents and for urban and housing policies, to face the problems of degraded and illegal city and at risk, that they demand a new type of professional;
support to the creation of a housing information system, guaranteeing necessary conditions for elaboration of more precise and updated diagnostics on the housing situation and a permanent evaluation of program.

Far from standard and beforehand made models, the Housing Project showed the conditions for appropriate solutions to material and cultural diversity in Brazil. Nobody, besides population and its representatives chooses adequately projects and priorities of urban development, and also, building material, social equipments, plans and programs.

The Housing Project guidelines had motivated all the intervening actors in the housing question so that they were engaged with their expertise in a strategy that aim to, in a stated fifteen years period, to guarantee worthy housing for each Brazilian. More than what this, to allow that, throughout this time, the cities are recovered and others that have not been deteriorated. In this context, to public, national, state and municipal administrations, a basic role as articulators, in their respective spheres of government, setting priorities to the question of the housing and instituting a system of management and social, responsible control for the implementation of the necessary actions.

Amongst proposals of this Project, the creation of the Ministry of the Cities was pointed as basic element to accomplish the diverse lines of direction and proposals.
Ministry of the Cities: Sprouting a New Instance of Government

The creation of the Ministry of the Cities [2], in 01/01/2003, constituted an innovative factor in the urban policy, that surpassed the sanitation and urban mobility, with intention to integrate them. Another basic factor of its creation was the definition of one national policies of urban development, aiming the coordination and integration of the investments and action in the cities to reduce social inequality and to respect environmental sustainability, as considered in the Housing Project. Ministry of the Cities was legally institutionalized under Mr. Luis Inácio Lula da Silva, first Presidential period.

The role of the Ministry of the Cities, in establishing an integrated national policies of urban development, was built through ongoing programs and actions of Federal Government Saving Bank, the National Bank of Development and other federal ministries [3]. Among them we may highlight the following ones:

- Habitat Brazil BID, destined to the urbanization of slum operated by Former - Special Secretariat of Urban Development (SEDU);
- the housing and sanitation programs operated by the Federal Government Saving Bank;
- the Housing Subsidy Program formulated for the Secretariat of the National Treasure;
- sanitation and transports the programs implemented by BNDES - National bank of Development;
- the DENATRAN - National department of Transit, before located in the Ministry of Justice;
- the CBTU - Brazilian Company of Urban Trains, before located in the Ministry of the Transports;
- Significant amount of resources of the FGTS – Working Time Fund, managed for an Advice Committee composed by government and civil society representatives.

All these organisms with its programs and actions in progress had been enclosed in the formalization of the Ministry of the Cities and had justified the caution in undertaken changes, mainly because there were previous binding documents and process compromising contracts, procedures, norms, laws, human and financial resources.

Being thus, at the first moments of the establishment of the Ministry of the Cities the purpose was to create a national policy of urban development as well as policies without paralyzing actions in progress actions, but perfecting them.
With the creation of the Ministry of the Cities, the federal government fulfills a basic role in the urban policy and regional policies of housing, sanitation and transport, strengthening the orientation of decentralization and reinforcement of the cities, defined by Federal Constitution of 1988.

In the attributions between federal government, state and municipal governments, the Ministry of the Cities drew new policies and new systems that made possible a coherent and integrated investment, amongst them the Housing Subsidy Policy and the National Housing Policies.

National Housing Policies: First Steps

The Ministry of the Cities, through National Housing Secretariat of the Ministry of the Cities, since 2003 is paving a fundamental path for housing public policies design and planning in the country. During this course, some achievements have been reached: the diagnosis on the housing question, the National Housing Policy, the National Housing System and more recently the National Housing Plan that will have to guide the State and Municipal Housing Plans in the country [4].

The first actions in the search for the elaboration of housing public policies had corresponded to the analyses of the diverse housing necessities that the country demands. Amongst them, it had been evidenced that the housing question, at the same time characterizes with common components also shows differentiated characteristics, taking in account the regional and local aspects. In sight of these evidences, the resolution of the policies, programs and institutional systems of provision of solutions will lead in account, necessarily, the requirements of decentralization and maximum flexibility in the elaboration of the solution strategies. One also evidenced that low buying capacity of the immense majority of the families strengths and reinforce the deficit, which, as a fundamental part of its logical design, it is essential that public policies considerate subsidies incorporation.

The spite of these facts, the public policies cannot restrict to the formularization of strategies limited to the confrontation of the situations of bigger social gap and social priority. The urban and housing problems have to be assumed from a broader perspective. Beyond this fact, the evidences of policy and adjustments programs absence – even in the groups that could face financial payment - finished provoking the “capture” few offered qualified solutions to poor and needed population with better income level, making the proposed solutions regressive.

Other verification regards institutional models, which if had characterized for: extreme fragmentation of pre existent institutional arrangements, multiplicity of stakeholders, absence of coordination, scarce autonomy, incomplete decentralization and absence of adequate covering of financements that assured continuity in the execution of programs and projects. Such factors, frequently presenting in
concomitant way, had turn habitation policies into a mosaic of isolated initiatives without long period perspectives, when the opposite measures might be expected.

The actions that had been analyzed and evaluated had reflected with clearness the aspects of the problematic housing of the country and had become indicating essential to conceive and to construct the practical conceptions and of the housing public policies, in the scope of a organic and integrated system, capable to guide the formularization and implementation of policies and programs of including and perennial character.

The new National Housing Policy [5], created in 2004, if delineated under the necessities and recommendations of housing diagnosis, as well as taking into account some proposals that had dealt with the subject in recent years, in particular the Housing Project. This new policies pointed guidelines, components and instruments to be followed. It foresees an implantation gradual, although already to be identified conditions that allow a relatively short transition. In the source of the social housing interest it was approved by the National Chamber and Senate the National Social Housing Interest System and Fund. With regard to the housing market, it exist the Law 10931/2004 and National Monetary Committee Resolution nº. 3177, March 8th. 2004, involved result of quarrels between the government and some sectors. All make possible a favorable environment for housing production.

In parallel some measures are being taken in the direction pointed for the new National Housing Policies. The resources for the sector had been increased in 2004, the FGTS – Working Time Fund it had one of the biggest budgets of its history. The FDS - Social Development Fund it did not use resources in habitation since 1996 and currently it is source for the program of Solidarity Credit that intends to rescue the participation of associations and popular cooperatives in the production of social habitation. The main existing programs had been reviewed looking for to approach them with priority demand and the public sector as partner in the actions. Moreover, the actions areas had been extended in direction to the agricultural zone and the areas of ‘Quilombolas’ and Indians.

The new policies also were considered to contemplate the conception of a new National Housing System, in which scope the following institutional structures had been accommodated:

- a subsystem facing Social Housing Interest, enclosed the equations of financing to the programs to be executed (involving in such a way the deep suppliers of onerous resources - with prominence for the FGTS – Working Time Fund, how much the sources of not-onerous resources – specially budgetary ones;

- a subsystem for the “market”, by means of whose operating agents if it can promote the gamma of solutions capable to provide the necessary alternatives of
attendance and enough so that some manifestations of solvate demand, that come being restrained for absence of adjusted answers, finished for finding its solution, scrambling itself, with this, the point of future will eliminate the pressures that congest the attendance in the bands of solvate social interest, the point of many times will produce the “expropriation” of the beneficiaries for the groups of bigger buying capacity; in some cases, also, provoking the displacement of the financial resources originally destined to the attendance, deviating them of those bands of lesser income that obtain to absorb the financings to benefit groups of the population that they could be being fully taken care of for the market mechanisms.

In the construction of the elements of the new policies, the new Nation Housing Plan principles, in final phase, are the following ones:

- worthy housing as right and vector of social inclusion, guaranteeing minimum standard of quality, basic infrastructure, collective transport and social services;
- social function of urban property, searching to implement instruments of urban reform to fight the speculation and to guarantee urbanizing land access;
- housing question as one Policies of State; the government is indispensable agent in the urban regulation and of the real estate market, in provision of housing;
- democratic management with social participation, social control and transparency in the decisions and procedures;
- subordination housing actions to urban policies.

This set of policies, system and national housing plan is drawn under edgier them strategies of combat to poverty and misery.

Constructing a Strategy to Universalize the Right of Housing in Brazil

Meeting the goals established by the National Housing Policies depends primarily on unconditional recognition of housing as a right. Everyone is entitled to decent housing conditions, that is, a house that comfortably shelters people living there, located in urbanized area, with easily accessed essential public services as transportation, health care, sanitation, education, and security.

Such achievement depends on the willingness of federal, estate and city governments, especially the latter at this time of changes in government administration, with the possibility of bringing appropriate mechanisms for housing production and financing and, also, at this moment of unfolding of national housing policies for municipal instances: with the creation of municipal housing policies. This policies willingness is considered as the direct involvement of governors to assure such right to population,
adequate allocation of resources, and establishment of a urgent deadline for accomplishment of municipal plans, programs, and projects.

Such success also depends on direct and active participation of the population and its organizations. Mobilization in defense of housing and urban reform has been the most important engine of a few important improvements obtained from experience and legislation. Different organized movements, national bodies and forums being formed and a number of local organizations are an essential point of support for assurance of resource management and destination. Society organization is also one of the most important guarantees for the consolidation of decent housing as a right and it joins its different elements in a single demand: good life conditions.

Such task demands the involvement of all the Brazilian society and it is the result of group work. It is not about coming up with some brand new idea, but a real possibility of solving one of the greatest problems considering the Brazilian population. It is about changing the way the urban predatory process is heading to, saving our cities, and driving its future development towards social justice.

References