Thinking about urban viaduct areas and their use as housing in Brazilian cities

Alfio Conti and Margarete Maria Araujo Silva

Architect and Urbanist, Master in Architecture Escola de Arquitetura da Universidade Federal de Minas Gerais – EAU FMG, Professor at Department of Architecture and Urbanism of Pontifícia Universidade Católica de Minas Gerais – DAU/PUCMinas

Marco Antonio Souza Borges Netto, Lawyer, Pontifícia Universidade Católica de Minas Gerais – PUCMinas, consulting.

Margarete Maria Araujo Silva, Architect, master in Civil and Urban Engineering – Escola Politécnica da Universidade de São Paulo – EPUSP, Professor at Department of Architecture and Urbanism of Pontifícia Universidade Católica de Minas Gerais – DAU/PUCMinas

Address:
Pontifícia Universidade Católica de Minas Gerais – PUC Minas
Department of Architecture and Urbanism – DAU
Escritório de Integração - EI
Av. Dom José Gaspar, 500 – Building n°3
30535-610 – Belo Horizonte – Minas Gerais
e-mail: integra@pucminas.br
alfioconti@hotmail.com

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1 ABSTRACT
This text is based on the fact that the viaduct areas constitute nowadays the shelter and the income source of one parcel of the urban population of great Brazilian cities. It is intended, at first, to trace a picture of habitation situation in contemporary Brazil, regarding matters related to local production and its reach.

Next, through an investigation about the characteristics of local habitation demand and its impacts over urban, it is intended to approach a very important aspect that hasn’t been deeply researched, which is the destination to be given to these people, considering the incapability of the government to reduce the rural-to-urban migration and the process
of social and economic exclusion, mainly in the urban area occupied by the poorer people, under the viaducts.

Having some experiences nurtured for over an year of work as starters, such as those along the homeless communities, developed by the Office of Integration of the Department of Architecture and Urbanism of the Pontifical University Catholic of Minas Gerais - PUC Minas, the Pastoral de Rua of the Archdiocese of Belo Horizonte, and Program Reproductive POLOS of Citizenship of the Law school of the Federal University of Minas Gerais - UFMG; the article intends to evaluate the possibilities to consolidate the occupation of these populations in the areas of viaducts in a sustainable way, in order to diminish the social exclusion and make it as a possible income source.

The objective of the article is to show the social, economic and legal viability of the inclusion of this population in the areas of viaducts and that this achievement could be a real. Therefore, we will demonstrate the ways and the strategies that are able to consolidate the new ways of use of these areas, including among them, the habitational use. t last, it is pointed that restrictions of ideological and cultural character weigh much more than the economic and technological ones.

2 INTRODUCTION TO THE SUBJECT

Ever since it can be said of an urbanization process in Brazil – as in Milton Santo’s acceptation – the Brazilian city has been labeled by an extreme and uneven distribution of urban benefits. Recently, the false shortage of urbanized areas and buildings, that was generated, on one hand by the real state agencies mechanisms of speculation and, in the other hand by the ineffectual – or confirmed nonexistence, as Flávio Vilaça indicates – of urban planning, has been pointed out as one of the causes of the exclusion of the majority of the population in what concerns the rights to habitation and the city. Disoccupied or underused urban areas and buildings are, today, the unveiled face of the infrastructure and habitation deficit in our cities. Therefore, it is about considering that the effort, here, should also reflect the knowledge of the potential of the installed capability in the city and the development of proposals that have in mind its utilization and its fair distribution: any effort, in urban planning and habitational fields, that ignores such a potential will work to aggravate the situation.

In this direction point out the initiative of the regulation of clauses 182 and 183 of Brazilian Constitution of 1988 – the City Statute – as well as some laws of allotment, use and occupation of valid ground, as Belo Horizonte’s. Despite that, the direct intervention of the State in the rehabilitation of idle urban spaces is still very little meaningful. On the contrary, Its performance is still distinguished by the creation of these spaces, especially related to residual areas, the so called public areas without urban attendance originated from the implement of components of the transportation system, especially viaducts.

The urban viaducts are components of the urban infrastructure which serve at first the vehicles circulation and then as ways to pass through ends of valleys, trainways, crossroads etc. A sharp look over this object of research discloses that, besides carrying out the roles in which was drawn, the urban viaduct propitiates, through its spatial and constructive characteristics, the appearance of free aside and marginal areas.

However, as they are not pondered within the functional and aesthetics planning of formal occupation, these areas end up to propitiate processes of informal occupation. In
Brazil, it is registered that the appropriation of these spaces is related to habitational use associated to activities that generate income to its inhabitants, what discloses the incapability of the State to pray for these basic constitutional rights, an apparent effect of the social and spatial exclusion of a considerable part of the population. The activities developed in these places, however, have been until recently, fit in as illegal, creating periodical removal actions by the government.

Nevertheless, the studies that concerns the matter of informality and illegality and acknowledge, and redeem the peculiarities of each space typology hidden behind the notion or concept of informality or illegality, are rare. The studies that focus on villages and slums (“favelas”) – space typologies which differences regarding the formal city were recognized even by the legislation, and, more recently, those that have as object the central areas of the metropolis. Among the recent ones, the work of Heitor Frúgoli should be noted; in which the broaching of the street paddlers issue gets our attention to the idealistic perspective that downtown city is concerned in what regards urbanism. On studies and actions of our city planners we cannot recognize what is specific of it: in an ideal basis, it is always being pointed out to be a city of a peripheric country and not a city of a central country. It is not admitted, and so, that our city has a shape of its own, definitely outdistancing itself of the model cities that are deep-rooted in the imaginary of administrators, planners and the population. In this case, there is still an opposition that comes from the government to consider the areas of informal occupation, under and nearby the viaducts, as tolerable of rehabilitation. For the exposed reasons, yet, the need to plan these spaces is a priority, once that its degradation represents a social, economical and environment loss for the city.

Inside the urban landscape what is being shown is that each social and spatial typology ended up becoming part of the city, in a way to be accepted by the government to act upon interventions of improvement and legalization. It was like that poor neighbourhoods of the suburbs, originally concealed parcels without any urbanistic or legal quality, ended up being objects, through the years, of urbanization programs and, in some cases, priority of the inhabitants and financed by the government. The same happened to villages and slums that, after decades of depression, ended up becoming the target of a process of urban planning lead by the property regulation and urban and environmental improvements, including, at last, programs to generate new jobs and income.

In the slums case this process is taking place in the consolidated occupations as well as in the central slums and in those situated in the periphery of the greatest urban centers, the ones that, generally, for being younger, present the higher degrees of social, urban and environment precariousness.

The setting outlined shows, at first, the existence of a positive position of the government and the social politics force, normally inserted in three directions:

1. Enlargement of the rights making the social role of the property viable;
2. Acceptance of the urbanistic and architectural informality.

Among these aspects, all of them fundamental, we emphasize the attitude of acceptance of the urbanistic and architectural informality, a mature posture that results in:
1. Acceptance of the existent and proposals for its improvement, even if that means to leave the patterns defined in the urbanistic legislation and warrant the definitive of the shape and image of the city, which each time more was becoming a city with its own shape;
2. Acceptance of the local and municipal government restrictions;
3. Acceptance of the existence of many ways to live and of the fact that these are part of the Brazilian culture and as that, shall be protected.

Despite these interesting premises, there are still some reserves in the government in considering the informal occupation areas, like those occupations under and nearby the viaducts, as liable of consolidation and improvement, and the reserve becomes hostility when alludes to maintain and consolidate the habitational use already known.

The restricted and isolated initiatives of rehabilitation of residual areas under and nearby the urban viaducts indicates a flat exploitation of the theme. In Belo Horizonte, the pioneer intervention experience to the requalification of the historical viaduct Santa Teresa (1999) is announced, and this way upheld by its planners: "the diversity of uses makes the liveliness of the place possible due to its admiration, appropriation and use by all layers of society [...] universalizing the use and reverting its degradation state [...] assigning other useful roles to society." In São Paulo, two experiences are worthy of note: Projeto Tesourinha - project of implement of beauty parlour under viaducts, associated to the capacity of old inhabitants to professional work – and Projeto Telecentros - a program of digital inclusion installed in many points across the city, including under viaducts previously informally occupied. These are projects that propose the environment requalification of these areas, combined with the social inclusion of its inhabitants, resulting on an effective utilization and a fair distribution of the installed potential. We know that what takes to informal occupation of such areas are also its qualities, rare and accessible to a minority in the Brazilian city: central location, accessibility and urban infrastructure.

It is evident, then, the need to develop project proposals that have as object the residual areas generated by urban viaducts and that search, through the exploitation of the object, an specific strategy to the utilization and the fair distribution of the potential in residual urban areas in the Brazilian city, integrating them to the State Property as functional and socially useful areas.

3 THE VIADUCT, ITS SPACES, ITS USES
The viaducts in the city are considered, since always, as urban infrastructures, connected, almost exclusively to vehicle and pedestrian traffic. They are components of the transportation system and transpose ends of valleys, crossroads, ad should contribute to the traffic articulation.

Without getting to the bottom of the matter if it is proper or not, in the contemporary city, the building of viaducts to solve problems of excessive traffic, its proliferation, however, composes, in many cases, an expensive and immediate solution, resulting, frequently and for many reasons, on the shortest way between two traffic jams. An objective condition that has been given for granted is that, in most cases, the viaducts are projected by the unique and exclusive reason to carry out their roles as infrastructures in the transportation system terms.
Viaducts designers historically disconsider the immediate surroundings for two simple reasons. The first one because, in many cases, the viaducts were built before the human occupation reached them. In this case, the matter of a possible occupation was previously discarded. The second proceeds from, naively or not, the consideration that the government could execute the urban controlling and occupation inspection in either those already built areas with a dense population or in those that the urbanization process could reach sometime and where these infrastructures were already available.

The disregard of the context, allied to the elaboration of a project proposal that, attending to the claimed requirements, creates, as a secondary product, free spaces with undefined use, to the incapability of the administration to exercise the basic activity of urban control, and still to the social and economic exclusion of Brazilian society, made these areas become attractive to the population that, in general composed by small groups, are unable to even be in attendance by the informal real property business that exists in the settlements.

The attractions of the viaducts areas were and are:

- The possibility of shelter against weather variation, due to the gaps, sometimes in an outstanding dimension, of the existent viaducts that cover free areas nearby the freeways to be crossed;
- The presence of adjoining vacant lots, in many cases of great dimensions (like the pillars of viaducts), for having vegetal covering, reveals itself as a potential area to grow vegetable gardens, animals and cattle pasturing, essential for who is or intends to work with cart drawing;
- The articulation of the areas with one or more medium class neighbourhoods, being able to generate an economic insertion more practicable there than in those offered in informal distant settlements;
- The presence of urban infrastructures, such as urban drainage and most of all, sewerage system, water treatment and electricity, to be used by "bico" or "gato" (illegal connections);
- The inexistence of geological risk;
- The possibility of the removal of the risks of living in slums and villages, connected especially to the presence of criminality associated to the narcotics traffic.

It is evident the lack of foresight and occupation planning of these spaces by the government that, facing the occurrence of a process which the causes and dynamics are so clear as the impossibility of intervention in its solution, prefers to ignore the phenomenon.

This common position, for example, on the process of birth and formation of the informal settlements made that the discomfort and precariousness soothing possibilities of this population weren’t explored, contained in a process of the occupation attendance that predicts some adjustments on these places on the spatial, functional and aesthetics point of view.

What happened was the indulgence of free will, of the abuses and the alien incapability of management, characteristic of the spontaneous occupation processes, that at
last made use of the areas reproducing in them the functions and uses that the city could not provide and even so, not exploiting the potential offered by them.

The activities favoured by the viaducts belong to an extensive range of uses, despite that, in the Brazilian case, the uses are mostly associated to living and the activities connected to the warranty of physics survival of the inhabitants.

It is understood, then, that it is necessary to plan the use of these spaces. The priority, as much as the government’s as the whole society’s, should be a planning that includes the uses and the communities that made out of these places a way of their insertion in society, so that this insertion is solidified under all points of view, including through the gradual elimination of prejudice towards these spaces and these populations.

4 FEW IDEAS AND LOTS OF PREJUDICE

It is understood that there are many ideas and points of views regarding the possible uses and the destiny to be given to these areas. On this purpose, two distinguished groups can be identified: the first is composed by the government proposals that foresee a conservative legal posture, one that the public purse agrees; the second, by civil organizations and research institutions and non-governmental organizations who proposes a legal reformist posture.

To detail the proposals of these groups, we will compare the ones of the first, face to face facts and substantial points of view.

The first proposals deal with matters of legal character, such as

- Local city Legislations that do not foresee nothing beyond the inhabitants removal. On the specific case of Belo Horizonte, the removal of the inhabitants is established on “bolsa-moradia” (habitational fellowship) program for a period of 30 months, after that the families would receive a home according the local habitational policy. In fact, the inhabitants are exposed to the arbitrary resolutions (lack of social attendance and inspection) and the inefficiency of the public administration machinery (delay on rental payments, home location far away from work places etc), with serious social-psychological problems, like criminalization and the social apartheid of the removed families handed to “bolsa-moradia” program, and serious consequences due to the depression originated by the loss of reference, especially for the former informal inhabitants, and economical, due to the impossibility to execute the professional activity due to the distance between home and work.

Another issue that will be dealt with in detail ahead is that, the inhabitants, especially those that have lived for more than five years in these areas, have the right, assured by the Constitution, to keep living there;

- Local city legislations that anticipate the deliver of a worthy home or care for that the existent homes become worth living. On the specific case of Belo Horizonte, the concept of a worthy home means a home “inserted in an urban context, with access to infrastructure, and to the services and basic urban equipments.” Studies have confirmed that most of the homes on viaducts possesses access to infrastructure and that, in the case that this access is not provided within the boundary areas, its installation is more viable in economic terms than in other situations, like in villages and slums, where the government has been compromised to intervene for over a decade. The majority of the
homes in viaducts has access to the services and basic equipments, and almost all signed families that live in viaducts use the basic services of nearby neighbourhoods, including healthcare facility, children daycare and schools. Finally, so that it can be worthy, viaducts homes needs the consolidation of the habitational wrapper, normally composed with materials used in construction, and of immediate feedback. That would contribute as well to soothe the ideologic and cultural prejudice.

- City legislations that prohibit the stable occupation in green areas. On this purpose, we remind that the concept of green urban area, any that be “a free area, occupied by a vegetal covering, equipped so that the citizens can enjoy it to rest and leisure, with periodical and systematic maintenance”. If one agrees to this definition, one shall agree also with the statement that the occupation is given, in fact, in areas with no vegetal covering, once this does not exists under the viaducts gaps or, when exists, despite the scarce illumination, does not add to the scenery any landscape and environment value worth of those names. Therefore, according to these reasons, it is not understood why these areas cannot be used, including those beyond the projection of the viaduct gap, because its occupation wouldn’t bear any damage; on the contrary, would generate a constant process of maintenance of the vegetal covering, with the fertilizing and conservation of the vegetal cloak, within the claimed standards, both due to the constant animal and cattle grazing, like horses, chickens etc.

Every citizen is aware of the condition of viaduct’s green areas, especially in the after-rain periods, when the grass can reach the height of a human being, a fact that indicates that the maintenance is poorly made. It is also known that, most of the times, the maintenance, when even takes place, results from the requests of local inhabitants, which are rarely made to the viaducts areas. Other compatible uses of these green areas are the vegetable gardens that in general exist in the areas nearby the viaducts projection area and that may, depending on the cultivation, become important such as in an economic point of view, creating a local microeconomy that assures the support of some families, as in a social integration point of view, and can become an agent in order to offer vegetable cultivation in urban spaces courses, and in a landscape point of view, creating an urban scenery that changes along the seasons.

- City legislations that define these areas as risk areas for those who carry out continuous activities there. In fact, the risk exists, but, in the same way that exists in the city. In many cases, the occupied areas, like for example the viaduct’s pillars, are places where the chances of a casual invasion by vehicles is minimum. The Physics Science contributes to soothe such risk, for the vehicles tend to be forced out by the tangent due to the centrifuge force. It also should be said that, in those areas a little more exposed to those risks, there are economic viable engineering solutions, like protection barriers normally used divide the roller bearing sections in highways or the proper use of the own arboreal and shrub, what would bring up the advantage of soothing the vehicle’s noise. The acoustic comfort could be also obtained by the use of barriers made of phono-absorbing materials, that, despite not having been used yet in Brazilian cities, are common in North American and European cities, and can be built at low cost in Brazil, with recycled and vegetable source materials. It is not understood, however,
why these areas keep been designated as risk areas; even if it is considered that the risk is bigger than in other parts of the city, a small investment, but properly applied, could eliminate it all at once. Another supposed risk is that generated by the type of material (carton, hoarding etc) that the homes are made of. Although the news of major fires in slums is very common, the risk of fire in these areas is pretty close to the risk of fire in a building or any group of buildings. Furthermore, this risk can be soothed by the use of not-inflammable material, just like, masonry, stonework. Anyway, we shall register that according to the inhabitants, the most likely cause to a fire would have to have an external cause, probably intentional.

Other matters of ideological-cultural nature:

- The inhabitants of the viaducts form dangerous communities in what regards the public order. To confirm that it is enough to check out some newspaper articles that tell the life of these communities to realize that they’re not the source of violence but its victims: “... they [the viaducts inhabitants] are bothered by drug users and robbers” 3, "with seven children, Francisca has fought against the action of criminals that want to steal, at night, the almos obtained during the day” and there it goes. It is necessary, therefore, to change he concept that these communities produce violence; on the contrary, due to the fact of being composed of small communities, they are not distinguished as the best place to be a criminal hideaway, as they are more subdued to their violence than the rest of the population, because they can’t count on the police support or alternative solutions created by the medium class, like private security. The communities should be seen in another way, that is, as a security warranty of a place that, left free and alone, can, in fact, generate insecurity. The experience shows that the communities are inserted in neighbourhoods nearby the settlement, and integrate with them in a way that neighbours walk fearlessly through these areas, and even know its inhabitants by their names. These, in return, collect recycling material inside the neighbourhood or sell the animals they raise or vegetables they grow in their gardens. There are cases of petition signed by several people in the neighbourhood in order to avoid the removal of these communities in the areas they have occupied.

It is worth doing some considerations before wrapping up this argumentation, especially regarding the size of the involved communities, an essential component to understand the reasons of why the government prefers to undertake some postures instead of others.

Certainly, the villages’ and slums’ populations should keep living in the same places, but one can’t say the same in what regards the viaducts’ populations. The numeric matter is relevant in both cases, but acquires an opposite meaning in the viaducts’ populations case. The few hundreds votes and/or the impossibility of voting make the difference. Besides that, the organization ad the mobilization, extremely high in slums and villages, and counting on the presence of leaders or ex-leaders, deceived or not by the local administrative machinery, are low or inexistent among the viaducts’ populations.

If there was a real concern in improving these communities situation, solving its problems under a progressionist focus, the government could do it through the establishment of quick actions (that wouldn’t last more than a few months or a year) and within a limited use of resources. But what the facts show here is the adoption of a
conservative and slow-witted view, that pursues the solution of these problems by quick actions (of few hours) of removal of the population and the demolition of its homes with tractors and trucks.

With a purpose of being pro-active, it is essential that the government seeks an agreement from a common point, that should be built and that could be, for example, the demand that these spaces don’t be idle, even because they would never be so for a long time. This means giving them a rise to be that shares the communities and the government’s needs.

The government, after a reluctance period, already begins to admit the possibility of use of these areas to activities associated with recycling, as long as these are run by people of the communities and that have already acted as promoters of such actions there. This could be a good start, but it is known that the public power is hostile to certain ways of use especially the habitational one.

The opposition to the habitational use is motivated by reasons that surpass matters of technical, technological, architectural, urbanistic, economical and social character. The reasons are briefed in a conjoin of objections merely well-founded in matters of cultural nature, and in some cases, of prejudice nature, of a particular point of view of life and the city of a specific parcel of Brazilian society – medium and high classes – that succeed in making their opinions being heard because they withhold the control in local administrations, that is, the levers of power.

The medium and high classes and, also a major part of the Brazilian intellectual minds, as just has been mentioned, had their cultural and ideological formation guided by European, North American models, patterns of the well developed western world. It is based on this consideration that we can meditate on the hypothesis that, from this formation, its ideological consequences, and the constitution of points of view, the institutions and administrations managed by these social sectors tend to reproduce an European and/or North American model of planning and urban control that, as known, is always incompatible and in debt with a reality that is far away from having the same European and/or North American characteristics.

This can also explain the difficulties to introduce a debate on alternative themes or a proposal composed by alternative solutions to solve the everyday problems of the great metropolis, especially if these solutions come from inside sectors of the academy or the Brazilian intellectuality. It would probably be completely different if those proposals came from “outside” (oversea): in this case, would be welcomed as true panaceas ready to be applied without any critical review. Examples of this type of submission can be found along the habitational history in Brazil in the 20th century.

Leaving aside the prejudice resulting from a lack of will to investigate and get involved in the object in dispute, the reasons presented to the impossibility of habitational use of viaducts are briefed, therefore, in the argument that they cannot be considered as proper places to people that understand themselves as citizens live.

The risk that fortuitously is present and the incompatibility of use of and ambient given as unhealthy by the presence of noise, gas and dust have already been spoken of previously here, and the existence of accessible solutions for these questions was shown previously; ahead it will be demonstrated that these solutions are also viable in an economical point of view.
The major obstacle to habitational use in viaducts areas seems to be, at last, connected to matters of ideological character.

5 JOÃO PINHEIRO VIADUCT’S COMMUNITY CASE AND THE PROPOSAL OF BELO HORIZONTE CITY HALL

João Pinheiro viaduct is named after the neighbourhood it is located. Its location overcomes the old access to the neighbourhood, made through Amazonas Avenue (exit way from Belo Horizonte to São Paulo), nowadays blocked by the presence of the urban railway that leads to Eldorado neighbourhood, in the municipal district of Contagem. The building of the viaduct is due to the implantation of the east-west “via expressa”, a sanitary avenue built around the seventies with the intention to connect Belo Horizonte to Contagem and Betim, and set as an alternative route of access of less dense traffic to Amazonas Avenue.

Fig. 1: intervention proposal of an area (A), intervention proposal of an area by local authorities (B) occupied area by homeless families (C)

The first families started to occupy the area of the viaduct gap projection in 1994. The small community of João Pinheiro viaduct, composed by 14 families, in a total of 28 people, is a symbolic case of how a group of low income take care of an remnant viaduct area and is able to, from it, withdrawn a way to support themselves through legal activities and in harmony within the nearby community, and even improving the local qualities.
The testimony given by an inhabitant of this community emerges in this same sense:
“When we came over here, there were other inhabitants, but it was all messy, the huts were badly made; then, afterwards, we tried to improve them, you know? We started to buy some pieces of wood, we won a great part of them, and little by little we built our huts.”

To the process of consolidation of the homes follows the process to endow the infrastructures:

“Here, for example, life was too hard because, when we came over here, there was no water. It was very difficult to get water. Not today! Today the situation has improved a lot. We made a cistern up there and now we have water. The time passed and a man from that company started giving us the water; then the water became too expensive and he quit it. Then we made this cistern up there and we get the water we use from there.”

The inhabitants maintain a peaceful relation with the nearby community:
“For the time being, they (the neighbours) have noting to complain about us, neither we have about them. They don’t bother us here and neither do we bother them over there (...) here we work, everything is better, and surviving with the children gets easier.”

The community is integrated in an economical point of view, and the maintenance of the families come from the inhabitants’ work, which is mostly picking up recycling material in carts or small producers of vegetables. In 2002, the community reached a balance stage, wit the consolidation of the number of inhabitants, the work activities and living locations.

In this same time (mid 2002), the government appeared in favor of the inhabitants removal off these areas, that generated fear and discontentment by the inhabitants:
"The only think that I can think of is that here is a place where we work, where we got used to survive. Everybody around here knows us, and I would like that the City Hall didn’t mess with us, that they left us quietly in peace, because this solution they came up with is no good for us".
This fear and discontentment were supported by the notorious incapability of the
government to attend these local habitational questions and were associated to the
conscious that the interventions would generate a period ruled by doubt and difficulties
regarding the definition of a new home location and the resources to serve the basic needs
to promote an independent work support.

"They (City Hall employees) came here and told us right away: ‘On August, 21st of
– I forgot which year was that – you will leave this place.

They then gave us a paper and were gone, disappeared. Now they came back to
bother us again. If they didn’t find a solution that other time now it is even worse, isn’t it?
Because we aren’t the only ones who live here. There are more people living here, just like
in other viaducts, right? Because, if it were only here, would be easier. But I think this
happens in every viaduct. If the City Hall doesn’t have a steady place to send us, they
better leave us here"

The City Hall ended up presenting a proposal, but only after the communities,
supported by the Pastoral de Rua of Belo Horizonte Arquidiocese, registered an
administrative appeal to assure the right to stay in the areas. From this document on, the
City Hall sought ways to settle in a common deal to find out manners to mediate the matter
in those areas.

The final proposal made by the City Hall and accepted by the community was that
the removal of the families would occur through their temporary inclusion in the local
“bolsa-moradia” program, until a land was found to resettle that community in habitational
unities (which project would be elaborated by the Escritório de Integração do
Departamento de Arquitetura e Urbanismo of Pontifícia Universidade Católica de Minas
Gerais), and until the João Pinheiro viaduct area was adjusted, in a projectual point of
view, to harbour the work activities that were previously developed there.

“In my opinion, the only thing they should and could do was to help us to build
better homes right here. It would be better if they stood by us, if they told us: ‘You can
build here and, if you want you can even use masonry. We will provide water, sewing and
electricity to you.’ Now that would be much better than taking us out of here, keep us in
rented places and then simply leave us there. At last, do we have the right to have our own
home, haven’t we?’

Alleging the unfulfillment of the deal’s terms by the expiration of the stipulated
dates, but without taking any responsibility of the own City Hall’s agents´ negligence – in
this case the agents of Noroeste region, who ignored the community requests, foreseen in
the deal – the City Hall ended up achieving its goals:
1. Removal of all families (the last ones were taken out in December, 2003);
2. Demolition of all constructions;
3. Destruction of all improvements made by the local inhabitants ( a classical example was
the deactivation of the cistern, by filling it with stones);
4. Closing the area with concrete walls and barbed wire, and a sign with the saying “Public
area. Do not occupy” was hanged, besides the threat to transform the place into one more
anonymous area to harbour an Unit of Collection of Small Contents - URPV, of Secretaria
de Limpeza Urbana – SLU (Urban Cleaning Sector).

Some families ended up living in the City Hall shelters, truly inhumane,
anonymous and inhospitable places; others started to depend on the City Hall to send over
the rental payment of the rented homes occupied by them, frequently sent with delay, what generates exasperation with the landlords. Besides that, many and serious cases of depression were registered, especially among those that had young children, for that didn’t have many options to warranty their own survival, as they had lost the only work they had.


The Federal Constitution of 1988 propitiated the forming of new constitutional principles, especially in economical and social ranges. The essential principles that that compose the Democratic State of Law are specified in the first clause of the Constitution. Among these principles, it is worth stressing the points of sovereignty, citizenship and the self-respect of the human being. These principles should serve as a foundation to the politics order.

The challenge set for all “is to promote the integration of the constitutional and legal principles in the light of social and environmental role of the property and of the city” (FERNANDES; [s.d.] p.361), even because, “the study of the juridical principles is an old theme of Philosophy and Law Theory, and understanding correctly how they are applied, especially by the courts, isn’t important just to the technical point of view of the juridical handler, but as well to shed light on the ethical principle of modern Law” (GALUPPO, [s.d.], 1).

It’s in this political and juridical context, characterized by social inequalities, more and more growing to be more intense, that the federal law nº 10.257/01, named as Estatuto da Cidade (“City Statute”), inaugurates a new juridical regime to urban real property (MATTOS; 2003), when proposes property regulation of real property occupied by popular homes.

In this sense, the Provisory measure nº2.220/01 introduced an instrument called Concessão de Uso Especial para Fins de Moradia (“Special Concession with the intention of Living) in juridical command that was strongly discussed, but not frequently applied in many Brazilian municipal districts, “the concession of special use with the intention of living fits in the traditional concept of concession of use as one of the modalities granting the private use of a public good” (DI PIETRO, 2002, p.163).

This institute assures the right to special concession of use, with the intention of living, of 250m² maximum space of areas or urban building located in public real property to who, for five continuous years and with no opposition, uses the area for own living or own family living, as long as is not owner or concessionaire of other urban or rural real property. There is the possibility of a collective concession that can benefit the low income population. However, if the government understands that the homes in the occupied area isn’t viable, for being, for example, an area where occurs crumbling, the concession will be granted in other public real property.

The juridical instruments of property present in Estatuto da Cidade have an inherent relation within the Judiciary, outdistancing itself, nevertheless, of the municipal public politics. There, so that property regulation achieves its objective, which is, legalizing the permanence of inhabitants in illegally occupied areas, the property regulation should be understood as a “process of public intervention, under the juridical, physical and social aspects, that has an objective of legalizing the permanence of the population that lives in occupied urban areas in no accordance with the law, and in improvements of the
urban environment of the settlement and the rescue of the citizenship and quality of life of the beneficiary population” (ALFONSIN, [s.d.], p.24).

According FERNANDES ([s.d.], p.359), "living illegally means living with no security of ownership, with no access to services and public communitarian equipments and without enjoying the benefits and opportunities brought by the urbanization". Therefore, besides possession, urbanistic projects that embraces the precarious cores of irregular occupation in the city should be formulated.

It is intended, as so, to rescue the citizenship and improve the life quality of the needy population that lives in viaducts.

The property regulation of viaducts areas would warranty, in a certain way, the social role of the property and the right of living, and would integrate an area before insalubrious and degraded to the city. "To attend this social role, the property should walk together with the collective interests, without superimposing itself. This demand affects the property in its structure, and influences the circumstances of the own right and not only its exercise" (MATTOS, 2003, p.42). And more “it is not proper to talk about social role as synonym of limits to property action, for that would be the same as admitting that the notion of social role of the property is merely negative. On a contemporary perspective, the social role should be understood as an imperative norm of action of the landlord, of executing and make something be executed in what regards a certain property" (MATTOS, 2003, p.49).

The special concession of use with the intention of living is, therefore, an important juridical instrument to property regulation of the gaps and pillars of the viaducts, because "it is important to examine carefully the instability status in the informal city, and recognize the right to these inhabitants to full citizenship" (IMPARATO, 2001, p.175). Only then “the social exclusion and segregation among rich and poor, that became evident within the urbanization, as the first live in the formal city and the second in the informal one, shall decrease". (IMPARATO, 2001, p.175) and the social role of the property shall be granted: by allowing idle and degenerated public areas to household use and obeying the legal precepts mentioned here.

Within the viability of householding under the viaduct’s gaps, harboured especially by juridical ordering, the government will be able to accomplish one of its responsibilities, which is of "planning, programming and promoting the execution of attempts of social interest and providing resources that warranty better living conditioned to needy populations" (FERNANDES, [s.d.] b, p.233), besides those pondered on the Federal Constitution, like for example the 6th clause, that assures the right of household and the 3rd clause, that mentions the objectives that should lead the political actions to be embraced. Those objectives compose the marks that are proposed to be reached:

I – building a free, fair and mutual society;
II – guarantee the national development;
III - eliminate the poverty and the marginality and decrease the social and regional differences;
IV – promoting all’s behalf, without origin, race, genre, color, age or other types of prejudice
We come to the conclusion that, the use of viaduct’s gaps to living is completely viable under the juridical aspect. However, and unfortunately, such a measure is not applied, just for plain prejudice.

7 THE INTERVENTION PROPOSAL
The projectual proposal in elaboration to João Pinheiro viaduct’s area foresees the consolidation of the existent uses when occupied by part of the inhabitants, gazing upon the householding use, and offers an alternative solution to the Belo Horizonte City Hall’s Idea of installing there a URPV - Unit of Collection of Small Contents - URPV, of Secretaria de Limpeza Urbana – SLU (Urban Cleaning Sector).

Figure 3: Destined tower to equipments for neighbourhood (A) destined tower for sponsoring enterprises uses and for community as well (B and C), housing block for families and others homeless families (D), multi-use area destined to homeless families for working activities (E).

The projectual proposal is divided in two parts: the first anticipates the use of the projection area of the viaduct to locate, in a portion of it, diversified uses, as beauty parlour, manicure, garages etc. – and those uses would be defined within the inhabitants, from the specialities already present – sheltered in containers projected to this end.

The rest of the projection area will shelter periodical activities, that can oscillate in fairs and manifestations of all kinds. These periodical activities will also take place in parts of the external area of the viaduct, that will be still reserved to the installation of pre-moulded industrialized stalls for horses and carts, in order to attend part of the population that generated its own income from these activities, and for the consolidation of the vegetable garden that existed there, including improvements of the production through the introduction of hydroponic cultivation.

The second part is composed of an habitational proposal, the building of a conjoin of homes for the former inhabitants and other needy families. The habitational proposal will be laterally expanded to the existent viaduct, growing over “via expressa”.

The concept which founds the proposal is to elaborate flexible projectual solutions that can be applied in other places with the same problems. The flexibility will be a
peculiar characteristic of these spaces, searched upon modular solutions, connected to each other or not, depending on the situation and the needs. The modules becomes, in this situation, an important alternative because, besides allowing the continuous variation of these spaces, adjusting itself to the activities flow and the conjoin of predicted uses, makes the reproduction of its basic elements possible through a process of a production in series, and consequently the decrease of the production cost. For all these reasons, pre-manufactured modules on the same proportions of the containers are being elaborated, turning the transportation, storage production and installation into an easier task.

Fig. 4: View of multi-use area under viaduct.

These places, as they are bypassed by streets and avenues, will be attended by all needed infrastructure available in the local. The proposal anticipates, then, the growing potential of the area as of multiple and diversified activities, integrating the community to the local economic system just as this marginal area to the city as one.

The area will be embraced by the public ways of transportation, especially some buses itineraries, that will have bus stops in a few meters from there.

The installation of permanent activities will demand the complementation of the proposals with solutions that sooth the discomfort generated by the proximity of “via expressa”, due to the intense traffic; for that end phono-absorbing barriers will be used along the urban highways, that will be produced by the inhabitants and that can also serve as outdoors of the local commercial and leisure activities. The phono-absorbing barriers solution won’t be, however, the only way to sooth the effects of the noise, as the vegetation, whenever possible, can also fulfill this role.

The habitational proposal foresees the building of 56 houses located in a metallic structure that will work as a trellis-work main beam with the capacity to surpass the via expressa in height, as the first one will be flanked by two of its supports. The homes, with a 50 m² dimension, and built in modules, will have room for a flexible intern space that will be defined by each one of the families, and they will be called to act on the enterprise,
and for that is being planned a habitational “sewing bee” (a gathering of people to help each other) in self administration.

Fig. 5: View of housing block.

This habitational gathering with the families participation can happen right after the first phase is finished, which is the building of the trellis-work metallic structure, to be made by professionals in the business. In this case, a partnership with Usiminas, a steel producer, is suggested; the company could offer the structure in a price lower than the one found in a regular basis and could make use of the project to promote the product and the image of the company, the social acting as the sponsor of enterprises of this nature.

Some spaces will be destined to activities associated to other uses, in order to attend, in a loan regime, the demands of the sponsors and partners in this enterprise, which could be, for example, Drogaria Araújo, "Doces França" candy producer, among others. Those spaces will be composed of a conjoin of rooms where lectures, courses and other activities could take place.

The habitational units will be able to employ the solar energy to water heating, and besides that, in two big reservoirs, the storage of pluvial water, that is not to be consumed by humans. Both measures can become viable through partnerships with local research centers of PUCMinas and Universidade Federal de Minas Gerais - UFMG.
Fig. 6: View of towers and multi-use area under viaduct.

The habitational units can serve as laboratories and a try out of new technologies solutions. An example would be the fabrication of its sealing elements out of bamboo, in this way related to an object of work of a local ONG that seeks to spread the word on constructive and technological solutions.

The budget for each habitational unit has been planned in R$ 20.000,00.

8 CONCLUSIONS
At last, we can define some criteria that should lead our intervention in these areas:
1) Appropriation of the physical, the environmental and social-economical capability installed and its potential of improvement;
2) Warranty of security and health conditions to the installed activities and to the city;
3) Warranty of the constitutional right to household in worthy conditions;
4) Extensive recovering of the areas, including the nearby places and the projection of the viaducts within the integration of the local inhabitants and the neighbourhoods in the uses and planned activities.

These criteria can, through a peculiar analysis of the situation, be pondered separately, and help the elaboration of conceptual lines and the establishment of intervention guidelines for the rehabilitation of these areas to the city, therefore, promoting the integration of one of the most disfavoured parcels of the population back to urban society.

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1 In Rio de Janeiro, the population that lives under the viaducts is about 1.500 people, in Belo Horizonte, the viaducts shelter around 1.000 inhabitants.
2 Pólos Construtores de Cidadania da Universidade Federal de Minas Gerais - UFMG e Escritório de Integração do Departamento de Arquitetura e Urbanismo da Pontifícia Universidade Católica de Minas Gerais - PUCMinas
3 Jornal do Nordeste, Fortaleza, 19/01/2001.
4 Interview granted by Dalva Ribeiro Silva to the authors, in February, 14th, 2003. For a better understanding and consistence of the text, the language used was adjusted to the norms of Portuguese language and then translated in English.