

The use of spatial syntax as a tool for scenario building: The case of Lapa District in Rio de Janeiro (Brazil)

A sintaxe espacial como instrumento para a construção de cenários urbanos: o caso da Lapa (RJ, Brasil)

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Abstract

This paper explores the use of scenarios building as a resource for structuring the urban project process in a complex and open perspective in a design approach. It is based on a case study of the Lapa neighborhood in the city of Rio de Janeiro, in Brazil and is the product of an ongoing research theme on public policies and territory at the Urban and Regional Graduate Program (PROPUR) of Federal University of Rio Grande do Sul (UFRGS). The method proposed includes the problematization of the project by scenarios *vis-à-vis* the space syntax analyses in order to establish the common points, as well as to generate data about accessibility and spatial integration. The intersection of these methodological approaches point out to the possibilities of syntax theory used toward the structuring of project process based on scenarios building by design. In doing so, we consider the following criteria: the local-global relationship; social integration; strategic dialogues; and co-responsibility on decision-making and new structures of governance. The main interest is to bring together for examination at the level of ideas distinct scenarios, as mental *constructo* drawn from social processes in order to highlight their differences and uncover distinct courses of action as guidelines for the project. The space syntax theory

Resumo

Através deste artigo, busca-se discutir a utilização dos cenários como recurso de estruturação do processo de projeto urbano em uma perspectiva complexa e pela abordagem do design. Utiliza-se como estudo de caso o recorte espacial do Bairro da Lapa, localizado na cidade do Rio de Janeiro, Brasil. Esse bairro situa-se próximo ao centro histórico e administrativo da cidade, constituindo-se em espaço atrativo pelos apelos noturnos dos bares e das boates, pelo seu valor patrimonial histórico e seu potencial imobiliário. O método proposto inclui a problematização do projeto por cenários *vis-à-vis* à análise através da sintaxe espacial visando estabelecer pontos de análise comuns, assim como gerar informações sobre acessibilidade e integração espacial. Os resultados das inter-relações entre diferentes formas de abordagens metodológicas e o objeto de análise apontam para as possibilidades do uso da teoria da sintaxe como um instrumento auxiliar na estruturação de projetos baseados em cenários pelo design. Nesse sentido, consideram-se como principais critérios: a relação global-local, a integração social, diálogos estratégicos e corresponsabilidades na tomada de decisão e novas estruturas de governança. O principal interesse aqui é examinar, no nível das ideias, enquanto um *constructo* mental definido por processos sociais, distintos cenários capazes de orientar dife-

allows to link scenarios building by design from an imagery plan to a topological dimension of urban space.

Keywords: territory by design, urban project by scenarios, space syntax, Brazilian cities.

rentes cursos de ação projetual. A teoria da sintaxe espacial permite conectar o plano imaginário dos cenários feito pelo design à dimensão topológica do espaço urbano.

Palavras-chave: território pelo design, projeto urbano por cenários, sintaxe especial, cidades brasileiras.

Introduction

The understanding of the city as an unfolding of conflicts and negotiations between different actors allows distinct approaches, and effective interlinked interventions related to social practices have to be based on the historicity of the urban space built. In its material construction, however, the action of urban design does not reflect this, because of the widespread use of a concept of space based on the vision previously built of a “vocation”, a “spirit of place” or even an “essence” that has been translated as a unique design option. Current project *praxis* of urban design goes on drawing ideas from theoretically unchallenged visions such as a “*genius loci*” and the architect assumes as guidelines for the urban project a single set of uncritical concepts often drawn from common sense. An alternative to overcome the shortcoming of such limiting approach for urban project must address the architect’s enabling capacity to grasp the meaning of such complexity.

One kind of approach to accomplish such challenge is by using the theory and methods of scenarios, understood as the occurrence of possible scenes amongst different tensions in the urban scenarios that can be structured from graphs of polarities. Scenarios are feasible state of affairs in the city, which take into account the existing or future tensions in the urban space and can be structured from polarity graphics. In this sense “project by scenarios” means to give an idea or impression in advance of the future outcomes of the problem under scrutiny dealing with choices of action difficult either for the architect or for society at large to conjecture beforehand.

Projecting by scenarios means foreseeing the future by problematizing the present in a complex manner and, thus, supported by facts and current events, modifying the existing mental model. The scenarios are not chosen as the “best” option. The intention is that in the confrontation the differences and options available will be clarified and highlighted, at the level of ideas, as mental images from social processes and, among a wider range of possibilities, they will conduct (lead, accompany) the project path. In this process, it is important to add another theoretical-methodological alternative vision to the usual practice of project development, retrieving the topological dimension of space and, at the same time, understanding the social processes as a spatial dimension. The spatial syntax can fulfill this role.

The method used here provides a problematization between project by scenarios and spatial syntax in order

to build points of contact between these theoretical approaches. The expected results of this crossover points to the methodological possibilities of space syntax toward a structuring of the project by scenarios that incorporates the following aspects:

- (i) a local-global relation;
- (ii) social inclusion;
- (iii) strategic conversation;
- (iv) co-responsibility in new formats of governance to subsidize the decision-making process.

As partial results of a research in progress in the Postgraduate Program in Urban and Regional Planning (PROPUR) at the Federal University of Rio Grande do Sul (UFRGS), dedicated to studying public policies and territory, this article explores possibilities for the use of space syntax as an analytical tool, generating visualizations and potentiality of scenarios as a resource for structuring the design problem in a complex, open perspective. The case study is the area of the Lapa district, located in the city of Rio de Janeiro, Brazil. This neighborhood is located near the administrative center of the city (CBD), which makes it an attractive site due to its historic and potential real state value, and the proximity to touristic bars and nightclubs. The information on the Lapa scenarios was produced in a workshop at the School of Industrial Design (ESDI/UFRJ) in December 2009.

This article is structured in four parts: in the first one, the shift in the project paradigm is discussed, moving from a pre-established vision within the *genius loci* conception to the multiple perspectives outlined in the proposal of project by scenarios. In the second part, the methodological approach is discussed within a proposed complex reading of the reality; in the third part, a brief characterization of the Lapa district is outlined in the context of the central business area of the city of Rio de Janeiro. The last part presents an application of spatial syntax in the social-spatial reality of Lapa, seeking to demonstrate the forces of centrality expressed in this study.

The Project values: from *genius loci* to the multiplicity of images

Originally created by the Roman society, *genius loci* was understood as the spirit which protected the place, the house, the family, the river, the temple, and was usually represented by a snake. Over time different societies gave it other meanings: the mythical phenomena of clans, the ancestral ghosts of the aborigines and other magical entities have developed giving rise to symbolic and religious senses, esoteric qualities, and mystical experiences

to specific sites. From this viewpoint the spirit of the place is in accordance between people and place.

In the phenomenological analysis, mainly from Norberg-Schulz's ideas, the *genius loci* earns a sense less mystical and turns its understanding of the landscape as "environment" to landscape as "place". In other words, the spirit of the place becomes a designation used to describe something that you cannot express in standards or other quantifiable ways. "Discovering" this *genius loci* would lead us to respect and maintain a place, defining things that happen as "taking place".

Contemporaneously "taking place" favors the entry of different interests in the social-spatial structure enabling a change in the original meaning of *genius loci* that allows the creation of multiple design answers. Therefore, the action of projecting in the urban space is not and cannot be a kind of *genius loci* rescue, of a spirit of place that recovers a single aspect. On the contrary, if there is a search for a spirit of place, it should carry internally with it all of its conflicts. It must be an action capable to explain the tensions and the complexities of internal and external conflicts. The place carries "the" stories and not "a" history: the urban space can develop only on these differences.

It is necessary to recognize the urban space as an expression of the complex articulations of conditions, elements, and agents that participate in this reality and can interfere in project decisions. This paper seeks to highlight at least two characteristics of the contemporary city that should be considered as important contributions to the discussion about the *genius loci*.

The first one relates to the promotion of multi-scale relations that lay foundations in the urban space by reason of the integration between global actions, materialized through the networks (Santos, 2006) and local actions that occur mainly in terms of the everyday routine of social practices (Certeau, 1994).

The second one points to the wide diversity of economic agents that act in the space of the city and eventually participate directly or indirectly in the decision-making processes on the urban interventions. In the production of the city's space many agents and interests are engaged and combined in different political fields and territorial arrangements (Harvey, 1980; Trindade Junior, 1998; Sanchez, 2001) and they need to be introduced in the examination of the *genius loci*.

These characteristics, not to mention others, point out to a linear path and a convergent solution, which dictates to the discussion of the *genius loci* an image of "city-merchandise" and, at the same time, call attention to the urban project circumstance that by its very nature has a multiplicity of conditions that transform it in a highly complex solution.

One of the difficulties of urban design is precisely this type of structure. It is necessary to conceive a project methodology that even while producing a synthesis (a formal outcome) can accomplish the project carrying on the differences. There is a need to understand this type of project as a paradox that oscillates between the closing (synthesis) and opening (no-synthesis) and is not just about physical solutions, but is related to a maturation that involves design strategies in different cultural levels.

The project by scenarios: Examining some methodological aspects

To design means to seek "a better solution" to a current problem, but foreseeing a "better solution" is not a simple process. Due to the many interests present in the urban realm the search for the best option involves the embodiment of various possibilities and explicating them by means of a design solution.

This can occur by structuring the project-problem in some possible solutions that can be expressed by scenarios. Project by scenarios means foreseeing the future by questioning the present situation, and recognizing its current conflicts. This would imply thinking about the future as an imaginary construction (construct) that should be endorsed by facts and circumstances that work modifying or clarifying the ruling mental model. There are at least two ways of thinking the use of scenarios.

One of them is to think the future as one (of the many) possible scenes and from there on construct all the needed artifacts and conditions to help the projected scene to occur. The scene is (mentally) organized and then all the following actions for its accomplishment are planned. This procedure is used in processes that aim to launch new brands or new products in the market. A new reality is conceived with the new product in the scene and is used by a specific public. In this case, the mental model is constructed in advance and reinforced by future strategies.

The other way is to think about the future as a series of possible occurrences expressed in a simultaneous way. The future is not conceived as a real event but as a generator of images that works as answers for the present and has the function of making pressure to modify the present mental model. This article takes this second perspective.

The validity of this case is the dialogue about the future that is authorized by the scenarios to what place can derive a transformation in the present situation and can lead to a change in this structured mental model. It is in "between" scenarios that the whole sense is established. These scenarios can be used in situations that are difficult to forecast, such as the highly complex situations of urban projects.

According to Güell (1997, p. 179), for the implementation of a strategic vision of a certain reality the development of "a series of scenarios for the future that delineates the inertial development of the object facing the various options of performance of the surroundings" is essential. These scenarios can be understood as many future possibilities whose occurrences have not yet been identified for sure. Projecting by scenarios, again from Güell's perspective, means to design imaginary futures, which can be expressed through plausible stories in which future sequences of actions and their results are described. Such a procedure works as a technique of trial and error in which the designer can operate in the scenarios more accurately.

Secchi (2006, p. 178) says that scenarios and strategies "are conceptual places in which the comparison between a multiplicity of strong rationalities is built in partial or radical opposition between themselves" and adds that "the contemporary world is not marked by the lack of the rationality principle, but by the emergence of multiple rationalities that are maintained, irreducibly, by their protagonists".

Processes of project building are disseminating in the field of strategic planning and are used in quite diverse situations. At the same time they are applied mostly to situations that are difficult to predict, and for Van Der Heijden, scenarios work in situations where there are structural uncertainties. To this author, this points that “the events do not happen by chance, but are related to each other by means of a structure in which the causes produce effects and one event leads to another” (Van Der Heijden, 2009, p. 133). This kind of causal structure allows in its design a bond of the territory’s history with its future.

Projecting by scenarios: The Lapa case, Rio de Janeiro, Brazil

In spite of its historical importance and its strong link with the traditional central area, the neighborhood of Lapa was only officially established through Law no. 5.407 of May 17th, 2012 (see Figure 1). According to Silveira

(2007, p. 118), Lapa became known as a place of bohemia, “ruin” and “stronghold of tramps”, among other names, in the 1930s onwards.

In fact, the neighborhood of Lapa is a place with historical importance to Rio de Janeiro because of its cultural and symbolic reference to the city not only as a pole of night leisure. Situated in the peripheral south zone of the central area it is limited by the neighborhood of Glória (already regarded as an integral part of the South Zone of Rio de Janeiro) and concentrates commercial uses (mainly nocturne activities). Low and medium income housing are distributed in old colonial style houses in narrow streets. In the last ten years the population growth of the central area (see Table 1) has defined in the vicinity of Lapa new profiles of occupation with new investments in housing.

Next to the neighborhood of Lapa some of the main administrative buildings (Petrobras, National Bank for Economic and Social Development, among others) are located and the area is also close to the equally important

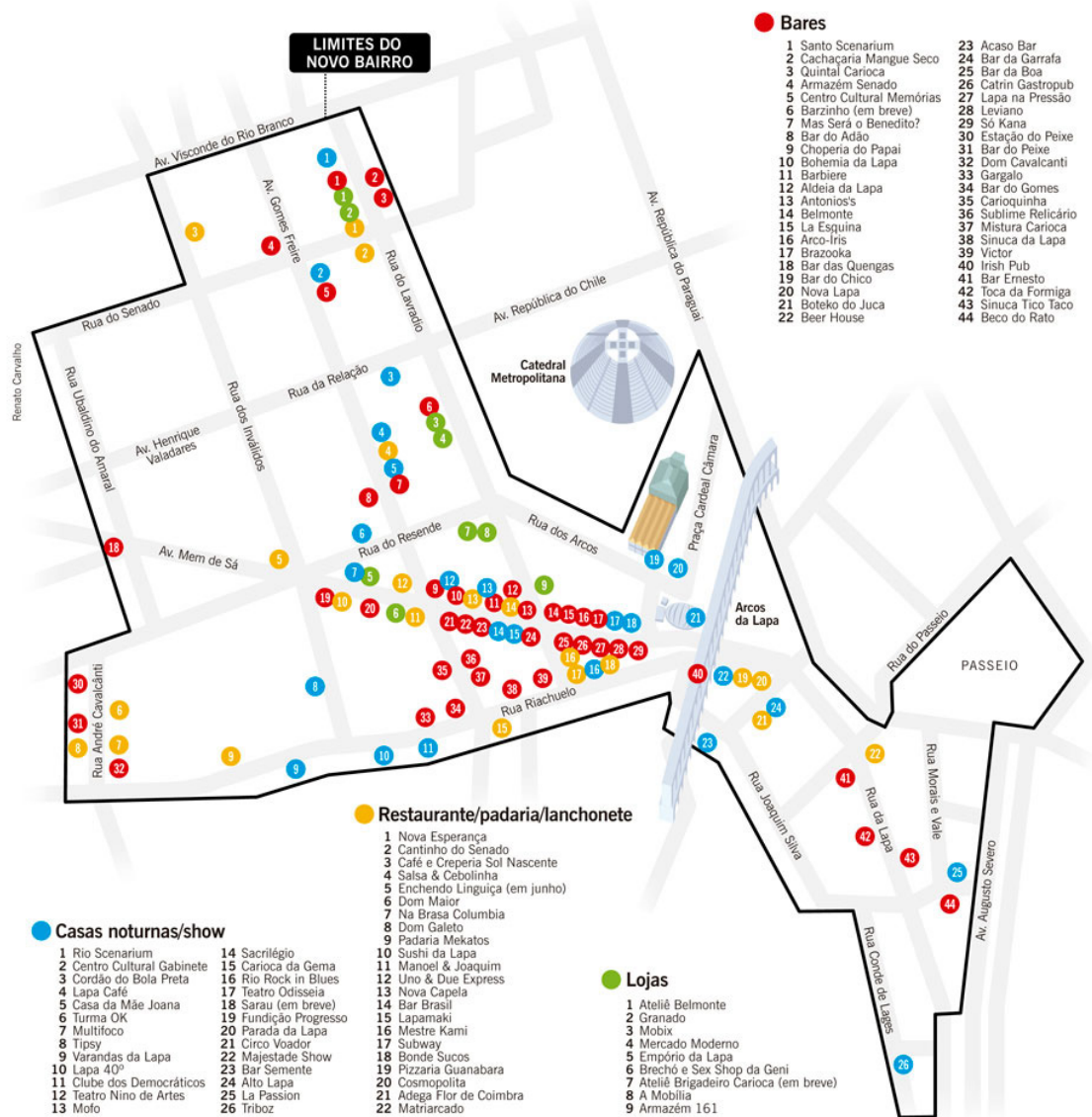


Figure 1. Limits of Lapa. Source: Globo Online (s.d.).

Table 1. Evolution of the population of the district center, compared to the state and the city of Rio de Janeiro (2000 and 2010).

	Population	
	2000	2010
Rio de Janeiro State	14.391.282	15.989.929
Rio de Janeiro Municipality	5.857.904	6.320.446
Central Business District	39.135	41.142

Source: Prefeitura do Rio de Janeiro (2010).

avenue Republic of Chile, characterized by the presence of other large companies buildings.

This area has also strong symbolic and imaginary content associated to the Largo da Carioca Aqueduct. This water passage was built in 1723, with 42 arches and 17.6 meters in height and 270 meters in length and was aimed at channeling and distributing water from the Morro do Desterro (nowadays the neighborhood of Santa Teresa) to the Morro de Santo Antonio. Since 1896 the Aqueduct works as the transport axis for the electrical tram that connects downtown to the Santa Teresa neighborhood and that is today the main imagery reference of the area.

Thinking about the future development of Lapa will signify considering the internal forces that are present in structuring the whole area, taking into account its contradictions and the different levels of tension present there. The level of centrality represented by this neighborhood even today as being the very "heart" of the city of Rio de Janeiro makes Lapa a strong attraction power over its population that goes there for amusement, and by the real state capital in search of profiting over land valorization.

Departing from these two factors it is possible to structure scenarios that indicate values which can be associated to the collective memory of the city, as well as scenarios that point out in the opposite direction, reinforcing the possibility of new real estate investments in the area. Considering this perspective, one can say that scenarios

are constructed from key concepts that represent the conflicts in the area (as cultural and economic dimensions) and can be expressed by a graph of polarities. This graph is structured by two axis intercrossed orthogonally (X-axis, horizontal; Y-axis, vertical). Each axis makes one of the present conflict evident and is identified, in its extremes, by keywords that explain the conflicting forces.

In the methodological structure of the scenarios, conflicts are expressed in two ways: one axis is marked by "exchange value" and another by the "use value". In the first case, the X axis has the polarities terms "speculation" and "tradition", representing estate market values. In the second case, the Y axis is marked by the "use valorization". There are polarities called "bohemian" and "everyday", which represent cultural values.

Before the description of the scenarios, it is important to highlight that they are projections of the reality dealing with the uncertainty of the future environment and not with evident predictability. Thus, every diversity of future occurrences is considered as possible however strange or contradictory they may seem. Scenarios are built crossing the concepts of graph polarities, added to a history that simulates the future situation. This history is used to make scenes visible and coherent though a possible future image supported by real facts and the present moment. To support the history, it was built an image panel (mood board) that allows some visualization of the future scene. The story is told in a journalistic

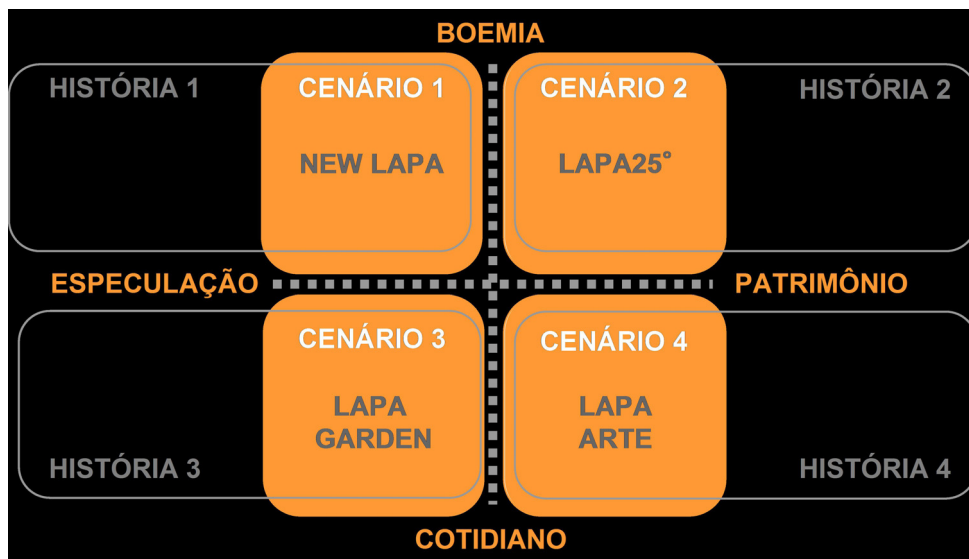


Figure 2. Scenarios through Graph Polarities.

Source: Made by Paulo Reyes (2013).

manner as if it reported an existence, as shown in Figure 2.

Scenario 1: Crossing *speculation* and *bohemian*, the result is the scenario called “New Lapa”:

History: Rio de Janeiro invested heavily in tourism, taking advantage of the infrastructure of the 2016 Olympic Games. This economic growth is evident in its current manifestation streets. Lapa, which once hosted small bars, presents today over 80% of its occupation by large show houses in 8-10-floor buildings of pure fun.

Mood board – Scenario 1 (Figure 3)

Scenario 2: Crossing *bohemian* and *heritage* the result is the “Lapa 25 Degrees” Scenario:

History: Rio de Janeiro celebrates the adoption of a new Law of Land Use that ensures the maintenance of heritage in Lapa’s neighborhood, controlling speculation and preserving historical buildings. The Tourism Department of Local Government has done a great job making tourists aware of their behavior regarding the preservation of urban heritage, especially in Lapa.

Mood board – Scenario 2 (Figure 4)

Scenario 3: the intersection of *speculation* and *everyday life* resulted in the proposition of “Lapa Garden” Scenario:

History: Rio de Janeiro has made great progress related to foreign investment, which was obtained for the Olympic Games 2016. The old Rio de Janeiro expressed mainly

in Lapa now gives way to very luxurious high-rise condominiums. This new appreciated landscape renewed city’s values, restoring an old degraded area.

Mood board – Scenario 3 (Figure 5)

Scenario 4: Crossing *shareholders* and *everyday life* resulted in “Lapa Art” Scenario:

History: Rio de Janeiro now breathes fresh air with the improvement of daytime life through artists’ studios, typical food restaurants, and craft fairs, after the alcohol consumption prohibition and the recurrent complaints from local residents about the bohemian nightlife in Lapa. This place changed its face without giving up the old architecture that is being revitalized by Monumenta’s Project.

Mood board – Scenario 4 (Figure 6)

As seen before, the architect’s mental model structures the process of project oriented towards a unique solution of its own *genius loci*. On the other hand, Scenarios proposals work as a disruption of this prime mental construction. In Lapa’s case, the mental model points to “Lapa 25 Degrees” scenario, because this one most clearly expressed everyday life aspects of the area. Lapa Garden scenario is still less obvious and difficult to imagine. However, this scenario implies a strong pressure of real estate market in the area and is already



Figure 3. New Lapa scenario.
Source: Made by Paulo Reyes (2013).



Figure 4. Lapa 25 Degrees scenario.
Source: Made by Paulo Reyes (2013).



Figure 5. Lapa Garden scenario.
Source: Made by Paulo Reyes (2013).



Figure 6. Lapa Art scenario.
Source: Made by Paulo Reyes (2013).

showing signs from planning laws that changed the density of the area, focusing on economic value over the cultural one.

Again, it is important to say that these scenarios are facets of the same reality showing conflictive and contradictory processes. We use the space syntax as a tool to advance in scenarios proposals, and as a new retelling of spaces in an integrated manner, which can guide a better understanding of the reality presented here.

Space Syntax contribution to the scenarios methodology

For our purposes in this article, based on the discontinuous geographical features of Rio de Janeiro, we use an axial basis of the existing city¹. A spatial clipping was defined with a diameter of nearly 12 km, centered in the Red Cross Square, considered here as the main point of Lapa. This clipping was expanded over the legal limits of its neighborhood, incorporating virtually all the old town center of Rio de Janeiro.

Beyond what the local law defines as Lapa district in 2012, it was included what is historically known as Lapa, that includes an enlarged occupation of Rio de Janeiro's CBD since the beginning of the 20th century. This period was marked by the construction of important and large avenues with the demolition of Morro do Senado, allowing

easy access to all CBD surroundings, Santa Tereza and Catumbi and also to the south zone of the city, being marked as the center the Praça da Cruz Vermelha (Braga, 2003). The new law defines the neighborhood restricted to what became the surroundings of the touristic Lapa Arches.

We adopted two essential syntactic measures to the work, considering the structure of the scenarios: global integration² (Figure 7), which allows to evaluate the scenarios designed with the spatial properties of the area and considering it in its broader relations; the local integration (Figure 8), which allows to evaluate the everyday structure inside the area, also an important index for the evaluation of scenarios that allows to examine some aspects of the neighborhood related to the everyday experiences of its residents. In another part of the area, especially those farther away from the city center, we opted for processing axial maps with continuity lines, which better reproduce the dynamics of the area.

The figures with syntax results were overlapped in Figure 1, which presents the official definition of the neighborhood and contains some interesting information about the main uses of this part of the city. This overlapping allows a comparison between the traditional Lapa and what is officially called the neighborhood Lapa.

We observe that the Praça da Cruz Vermelha is situated at the confluence of a large part of the axes that present the greatest global integration of city's form, which has

¹ Made by Valério Medeiros and Maira Pinheiro.

² Axial map processed in Mindwalk© by Lucas Figueiredo.



Figure 7. Map of global integration.

Source: Made by Decio Rigatti (2013).

given to this place the central role that, in fact, actually occurs. The clipping of the new neighborhood of Lapa shows a part of a more regular morphology, formed by globally important axes, mainly by the presence of a diagonal axis – the Mem de Sá Ave., which unifies the axes in both directions of the grid. This condition reinforces the central role of this avenue and explains the diversity of uses and the concentration of non-residential activities, linked to the bohemian life - bars and nightclubs - but also marks a strong presence of activities related to everyday life, such as bakeries, restaurants, shops, etc. Moreover, this system of axis with high global integration penetrates directly into the city center of Rio de Janeiro, providing high accessibility between Lapa and the downtown area.

The spatial distribution of local integration³ allows verifying that there is a large overlap among globally and locally well-integrated axes. Even in this case, the Praça da Cruz Vermelha appears as a focus where much of the axes intersections happen, concentrating the core local integration that reinforces the character of everyday life in this area. The area surrounding the Lapa's Arches, which is the main touristic and bohemian destination, is slightly less locally integrated, making evident its more global character and, therefore, more accessible compared to the rest of the area.

It is important to observe that the area as a whole has a large overlap of global and local accessibility - 0.8455

correlations between global integration and local integration. Therefore, there is no evidence of a clear and definitive emphasis about a future scenario that does not address both the everyday experiences of the area as well as the most global experiences of the city. The bohemian and touristic vocation is not spatially separated from what historically has been structured as a traditional neighborhood, its residential use and the expansion of the CBD, even though the Lapa Arches operate almost as an epicenter of these activities.

It appears in the morphology of this area a simultaneous global and local relevance of spaces and their social use, and the recent delineation of the neighborhood does not affect nor modify the space.

Despite the results obtained by the configuration analysis of the area, the existence of a cultural and economic conflict in the neighborhood is observed in the last decade, expressed mainly by social and spatial practices developed there. These practices may be represented by scenarios that link, in the first place, the improvement of a cultural Lapa with low density and, secondly, the transformation of the neighborhood into a business center and high-density residence place. This clearly appears in two distinct moments and was commented by local newspapers.

In the first newspaper article from 2007 there was an emphasis in the new investments favoring nocturnal ac-

³ We use a radius 3 as a limit of processing.



Figure 8. Map of local integration.
Source: Made by Decio Rigatti (2013).

tivities, although the estate market focus was on housing for middle and high-income population, which already was a plausible reality linked to the morphological conditions of the place. This case seems to point to the New Lapa scenario (intensification of nightclubs):

The region has about 400 bars, restaurants and show houses. Only in Lavradio Street, the Associação Polo Novo Rio Antigo reports that, from 2003 to this year, the total options jumped from 13 to 24. [...] The Rio Scenarium [a big show house] that receives up to 2000 customers in one night opened a new area next to 400 people. The main coordinator of the revitalization of Lavradio, a center of music and gastronomy, Pliny Fróes, a partner at Rio Scenarium and Cachaçaria Mangue Seco, prepares the inauguration of the 3rd group home, the restaurant Santo Scenarium. There are commercial buildings and condominiums being built around Lapa. [...]. The investment of the construction is a good barometer of what can happen there. According to the Association of Directors of Corporate Real Estate Market, since 2005, 866 new homes were released in Lapa (Erthal, 2007).

In 2010 it was verified what may tend to be a reversal of this scenario, closer to Lapa Garden scenario, pointing to the growing presence of the estate market construction with a large spatial impact in the neighborhood, through the following article issued in *O Globo* (Magalhães, 2010): “An Act under Measure: the release of a building up to 44 floors and at 200 meters of the Arches creates controver-

sy”. These different perspectives reinforce the idea of the city in constant change of processes and meanings, which raises a question about the different possibilities of intervention in areas with apparently consolidated uses and morphologies.

Conclusion

This paper emphasizes the importance of using space syntax to understand a given urban reality and to reflect about possible strategies for urban design, based on the construction of scenarios. We used the example of Lapa, on account of its strong symbolic language linked to the history of the city and the entertainment by night.

The neighborhood area overlaps both in structure and in certain economic dynamics with the space that can be identified as the center of Rio de Janeiro. In this sense, both indicators of global integration and local integration help us to understand the current structure and the pressure for changing verified in the area.

Thus, from the morphological characteristics of the area and from the possible scenarios found, we point out the following observations:

- (a) The New Lapa scenario strengthening aspects of bohemian and nightlife for the whole city is justified by actual high global integration, but it presents conflicts with the strong local character also evidenced for the area as a whole;
- (b) The Lapa 25 Degrees scenario with maintenance of the current structure of uses and occupation is present-

ed as a possible scenario, because there is a strong local integration, but it is confronted with estate market interests to economically exploit these locations;

(c) The Lapa Garden scenario, based on high-density vertical residence buildings, is a possible scenario for the characteristics of global and local integration verified by space syntax analysis. However, this scenario tends to produce a Lapa *ex-nihl*, through the replacement of people, buildings and uses, including those linked to bohemian life, which are usually avoided in residential areas;

(d) The Lapa Art scenario that is characterized by the maintenance of daily life activities with the removal of bohemian aspects seems to contradict the character of centrality and wide use of the neighborhood by the city, and it is currently explained by strong global integration.

Each of these scenarios seems to establish a character for Lapa that virtually eliminates the possibility of occurrence of the others considering that each scenario strengthens and preserves the existing aspects or reinforces the new interests involved. However, the possibility of designing a scenario implies the consideration of all the conditions present in the interpretation and negotiation process.

Thus, from the point of view of an urban area dynamics with the morphological characteristics presented by Lapa, it seems more productive to have a negotiation process that could define limits for all interests at stake: estate market, the residents and traders, tourists, investors in nightlife.

The strong global and local character of the area seems to justify the production of a fifth scenario, agreed upon among all agents involved, without disregarding or eliminating established experiences and, at the same time, making the renewal of city life possible. As proposed by the morphological characteristics of Lapa, its history and its symbolic value, it will be in the overlapping uses and occupation that the richness and the greatest development of the area will happen. Any scenario that disregards this reality tends to impoverish the city as a whole.

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