THE THICKNESS OF THE GROUND.

Four micro-stories on the project of the open urban ground floor in São Paulo from 1892 until nowadays.

Federica Andreoni

Scuola di dottorato in Architettura. Dottorato in Paesaggio e Ambiente. DiAP Sapienza Università di Roma
federicandreoni@gmail.com

ABSTRACT

The research is framed thematically in the field of urban open space design in the contemporary city, mainly dealing with the system of urban voids. The hypothesis from which the search starts is that it is in the thickness of the ground of the city that architecture, as a spatial configuration, can operate in a more effective and incisive way to the city project. Consequently we also want to investigate the possibility of related project devices. In order to do that, we take São Paulo as the field of enquiry, because the two meanings associated to the expression “the thickness of the ground” are particularly relevant in this city.

Keywords: Public space. Open space. Urban Design. Urbanity. São Paulo (city) Brazil.

1.Prologue

This article is the result of a current doctoral research; therefore it represents its partial progress.

The research is framed thematically in the field of urban open space design in the contemporary city, mainly dealing with the system of urban voids, meaning these as the primary structure of the city. Reversing the traditional notion of figure and ground, attention is directed to the background –open spaces- in its autonomy, or relationship with the figure -the construction-.

In particular, it explores the ground floor of the city, read as a landscape or as the result of the relationship between tangible and intangible elements.

The hypothesis from which the research starts is that it is in the thickness of the ground of the city that architecture, as a spatial configuration, can operate in a more effective and incisive way to the city project. Consequently we also want to investigate the possibility of related project devices.

We want to assign to the expression “the thickness of the ground” two levels of meaning: a physical (relative to the spatial dimension) and a symbolic one (related instead to the density’s values).

The first relates to the spatial dimension, meaning the ground floor of the city as a three dimensional space and not merely as a surface. It refers to an attitude of project opposing the sloppiness of two-dimensionality (Cellini, 1992); an attitude of the city project that doesn’t think the territory as a surface on which to set the volumes of the buildings. This implies the design of a spatial configuration that makes the relationship with the ground, a significant space and precisely three-dimensional.

The second meaning relates instead to the values of density that occurs in this space. The same space can concentrate different and plural intentions, manifesting itself as a superposition of expressions and heterogeneous activities, sometimes even inconsistent. The thickness, in this sense, is given by the accumulation of values in a same space.

The main objective of this research is to investigate how the project can allow the occurrence of an urban open spaces characterized by this thickness, considered in its two meanings. In order to do that, we take São Paulo as the field of enquiry. The two meanings associated to the expression “the thickness of the ground” are particularly relevant in this city.

The first meaning is an almost literal response. A 20-meters-thick ground, given by the distance between the two “zero level” of the city, characterizes São Paulo. It is in fact built on a high *plateau* at 745 meters above the sea level; at the same time an articulated topographical system defines a second level, lower than twenty meters: the valley’s one. To this geographical condition relates the act of inhabit the territory.

“São Paulo has two clear constituent elements: one geographical figure, which is the valley; one piece of construction, which is a bridge. Specifically they would be Anhangabaú Valley, as the fundamental geography, and Chá Bridge, as the fundamental construction” ¹(Bucci, 2015:39).

The relationship between these two elements, the construction of the city and the original geography where it engrafts, originates the thickness of the ground. Regardless of the specific pair of elements, taken as example by Bucci, actually this relation appears countless times in the city, which in fact has a rich hydrographic network. It can indeed get to say that this duality, and therefore this thickness of the ground, is a characteristic condition of the whole city.

“If I had to describe a unique feature of São Paulo it would be the thickness of its ground, 20 meters. It is the distance between the plateau, which defines the upper city level at 745 meters high, and the riverbank, which marks the lower city lever at 725 meters. It is entirely comprised inside this thickness, to be precise, in the relationship between lower and upper lever and the way they merge and blur, where I believe the architect can most effectively operate.” (Bucci, 2015:40).

¹ All the citations of the article are in the original language.

Topographic map of Anhangabaú and Tamanduateí.
(Ab'Saber, 1957)

Geological section of Anhangabaú and Tamanduateí valleys.
(Ab'Saber, 1957)

This feature, indeed, founded two of the most famous descriptive images of the city.

The first, by Ab'Saber (1958: 22), is: "Nascida nas colinas de nível intermediário (745-750 m), a cidade se expandiu segundo um eixo leste-oeste, na vertente esquerda do Tietê, saltando de colina em colina". The second is by Le Corbusier (2015: 239-242), who during his trip to São Paulo in 1929 is similarly impressed with the character of the city, which then described as "built on the high plateau of Brazil at an altitude of 800 meters, hills against hills; valleys against valleys between the hills" and then continued observing: "Poetry would be possible there. Is there anything more elegant than a pure line of a viaduct in an undulating site and more varied than its substructures sinking into the valleys to meet the ground?".

The second meaning of the thickness of the ground harks back to one of the salient features of the Paulista design culture: the ambition to design spaces not necessarily prescriptive, in which traditional oppositions such as inside/outside, private/public, closed/open lose their dichotomous nature and rather condense into hybrid and new configurations.

Instrumentally, to investigate the matter raised, we take four urban stories of São Paulo as samples. These four urban pieces can be considered as four significant samples since, differently from each other, they well embody the concept of the ground floor thickness, investigated through a series of projects, processes, transformations layered and happened along the twentieth century until now.

These urban transformation result from disparate phenomena (a widespread design culture, authorial responsibility, incentives dictated by public policy, private initiatives...); but they are all respondents and coherent, from time to time, to the expectations - or the disappointments - of a complex and changing society.

The article is, in its central body, divided into four sections, each corresponding to one of the urban pieces, the study objects. Although they are organized in a chronological manner and follow a consistent linear reading, each of the sections at the same time has an individual character and operates as an independent micro-history.

The first section deals with the Vale do Anhangabaú (1892 - present).

This is the area of the valley Anhangabaú, a river intubated today, articulated by several projects and competitions. The various changes happened on this portion of the city, whose ground floor is literally split in two different levels, make it a particularly representative place; throughout its evolution it can be possible to gather the visions produced by the architectural urban culture, over the metropolis of São Paulo.

The second section deals with Higienópolis (1912 -1960).

Higienópolis is the name of a district consisting essentially of a residential fabric, where the limit between public / private is widely settled in garden. Higienópolis is very consistent as a whole and so considerable as a completed joint. The interest of the configuration of its ground floor consist of the declination, in such a

tropical key, of the typically Modernist *pilotis* building, enhanced by the interaction with the garden. These open spaces, due to their ambiguous attitude between private and collective, structure the city pursuing an idea of an open and permeable city.

The third section deals with *Centro Novo* (1938-1968).

The *Centro Novo* is a part of the city center characterized by a pedestrian internal passages system. Within a commercial fabric, in a relatively short time span, this system conforms a second path structure complementary to the street's one; however, it borrows from the street the vital character. This configuration of spaces promotes a convivial and cosmopolitan ground floor, which clearly reflects the climate of the urban sphere of that time.

The fourth and final section deals with the Minhocão (1969 - present).

Minhocão is the nickname with which is commonly appealed the elevated road built in the 70s. From being the symbol of a design based of the viability concept, nowadays it reflects the contemporary rematch of the body, through spontaneous practices. So today, the Minhocão is a space that, thanks to alternate uses, offers the possibility to think of hybrid and rich spaces.

The final epilogue suggests some crosscutting issues, as a conclusion.

2.1 Anhangabaú

The Jesuit settlement who gave birth to the city of São Paulo installed on a very defined and quite horizontal *plateau*, at 745m height above sea level. The valleys of the river Tamanduateí and its tributary Anhangabaú, bordering the *plateau*, are two distinct valleys. The Anhangabaú is a depressed fence, a gorge with an average 150m width, bounded by two side *plateaux*. Its length is about a kilometer, with the beginning of the hill Bexiga, where currently sets Praça da Bandeira. Hence it flowed into the Tamanduateí River (Bucci, 1998).

For three centuries the city of São Paulo was closed in this small *plateau* between the two rivers. A network of paths linked the city to external settlements, but it still was very narrow and well defined.

The Viaduct of Chá, by Jules Martin, exceeding the Anhangabaú valley, was built in 1892.

At that time the low lands of the valley did not have a proper urban qualification; they were in fact meadows and plantations, such as if they were the city courtyards.

Viaduto do Chá of Jules Martin, just inaugurated. 1892 Ph: G. Gaensly e Lindeman.

Toledo, 1996

It is a project that responds to the wishes of an entire city; the project itself is a way of inhabit the territory that will become typical of the whole history of São Paulo. As Angelo Bucci (1998:14) notes:

“dizer que a cidade moderna em São Paulo nasceu dessa realização, ou dizer que a idéia realizada, depois de sonhada durante um século, se transfere para compor o imaginário de toda a população pode parecer exagero, mas contém verdades a serem observadas”.

“Alegoria à construção do Viaduto do Chá feito por Jules Martin” 1887

Toledo, 1996

For Paulistas architects and planners, the valley has assumed in the history of the city the role of big laboratory, being the subject of plans and projects from the beginning. It is noteworthy that a large part of the professional class who acted in São Paulo in the last century has developed a project idea for this area. Among them are people like Ramos de Azevedo, Joseph Antoine Bouvard, Le Corbusier, Francisco Prestes Maia, Elisário Bahiana, Gregori Warchavchik, Lucjan Korngold, Oscar Niemeyer, Rino Levi, Vilanova Artigas and Paulo Mendes da Rocha. From this perspective, the Anhangabaú valley can easily be regarded as an architectural showcase of São Paulo. (Hereñú, 2007).

Anhangabaú on South direction - Viaduto do Chá and Praça da Bandeira, 1996

Acervo Associação Viva o Centro - ph: Nelson Kohn

Among the many visions that have overlapped on this area, we decide here to discuss one in particular, although not realized, because of its particularly significance in respect of the ground floor thickness concept. This is the Vilanova Artigas proposal.

From the middle of the XX century in São Paulo, the urban design culture had to confront with the society's massive needs to organize adequately the urban space according to the industrial capitalism development (Meyer, 1999). One of this organization's principles was the design of a suitable space for machines era. The impact of these choices could not avoid to affect, very forcefully, the Anhangabaú Valley, which occupied a special and quite strategic place, right in the heart of the city. Thus it was that the image of a

valley, configured as public gardens overflowed by the viaduct, was quickly lost. In its place the space of roads infrastructure was planted. The modern era symbolization actualized the Anhangabaú image, through the new progress ideals: the car, the Avenida expressway, and the skyscraper. The new configuration gave origin to a place with a new meaning, at that time, so, the Anhangabaú Valley becomes a “passage” (Hereñú, 2007).

The Valey in 1973

[SÃO PAULO (Cidade) Departamento de Planejamento dos Sistemas de Transporte. Vias Expressas. São Paulo, 1973]

In this context, at the beginning of 1974, the Municipal Prefeitura of São Paulo contracted Vilanova Artigas for the elaboration of a reorganization plan for Anhangabaú Valley. The official request was physically, and above all functionally, restricted to a limited portion of the Valley (between Praça da Bandeira and Viaduct Sta. Efigênia); what was being sought was the resolution of the conflict between pedestrians and motor traffic and the organization of public transport bus. The assignment namely took its cue from the public pressure, driven by the constant accidents caused by the conflict of flows, and thus had a reparatory character. It was not at all a far-sighted idea: the plan that the Prefeitura expected was therefore an immediately workable plan.

Quite the contrary Artigas recognizes from the beginning that the scope of the issue transcended the imposed limits, both conceptually and physically. For him: “O Vale do Anhangabaú é o centro monumental da cidade de São Paulo, a avenida de entrada e travessia da URBS. (...) Desde o começo do século, o vale precisou ser atravessado, ultrapassado e, muito mais tarde, franqueado ao uso que hoje oferece como avenida de grande porte. [...] O primeiro Viaduto do Chá, o de Jules Martin, data de 1892 e teria sido construído, como se disse, à guisa de válvula de segurança para o congestionamento do triângulo. Na verdade estamos versando há cem anos [...] os mesmos problemas, as mesmas questões, se bem que em escala diferente: atravessar o vale, e urbanizar a calha”. (Artigas, 1976:36).

As the very first design principle, Artigas argues that the Valley can only be dealt with in its entirety, stating that “deveria ser avalizado um estudo urbanístico com o fôlego que a realidade atual de São Paulo exige, considerando também o trecho Viaduto de Santa Efigênia – Ponte Grande” (Artigas, 1957:38) and then formulates a project that greatly exceeded the demands that had been made.

It is from this attitude that Artigas develops a proposal for this so important portion of city ground, trying to overcome the contradictions that until then had not found conciliation. It was the tension between two concepts superimposed over the Valley already throughout the century.

On one side the concept of a valley like a urban open space, configured as public gardens, available to the community, with a decidedly local breath; on the other side the concept of a place of passage, mainly for the automotive rapid flow, as a main junction for the metropolis.

The proposal advanced by Artigas is that these features could have been basically not contradictory and, on the contrary, complementary. Artigas imagines the ground floor of the heart of São Paulo like a space that could simultaneously reconcile contradictory characters, a space full of meaning.

Model of Artigas Project
(Artigas, 1976)

Among the devices of Artigas project, identified by Bucci (1998), through which this synthesis would be fulfilled, it is interesting to highlight a few of them in particular.

The bridges constitute the two terminal parts of the intervention. Bridges are not the ends rather than passages, indicating namely the connection between this portion of the city to the rest of the metropolis; the intervention reaches out to the context, in which it is inserted, with a collaborative attitude with the adjacent layout.

The adjacent buildings to the area of the valley were provided with a *pilotis* plan. This would allow to keep free a deep view of the valley and not to cancel the perception of the splitting levels, so typical of the Anhangabaú and the whole São Paulo.

The walkways are designed to be a unique set, and not as isolated samples. With a width of 10m, they maintain the same level, without any interference. The half level on which they were implanted (739m) is between the city and the valley, and facilitates a continuous walk. In this regard, Artigas (1997:177) observes: “O projeto de reurbanização do Vale do Anhangabaú é mais que um conjunto de passarelas. Ele prevê a remodelação total do Vale. [...] Seria a transformação daquela ‘barbaridade’ de pedestres com veículos que existe lá. Um lugar que eu não posso atravessar, de carro ou a pé, sem ser insultado: ‘Ô, seu velho idiota!’”

The *calçada* project was assigned, in the second stage of the project, entirely to Roberto Burle Marx, who proposed a pavement in Portuguese mosaic with the colors of São Paulo, adjusting his characteristic language; the result is a continuous drawing among all the re-conquered spaces in favor of pedestrians. It is a system that includes walkways, suspended passages and above all two large tree-lined walks, where the entrances of most public activities of the urban are.

The Artigas project is an extended, conscious, articulated answer, to a question rather restricted since the very beginning. It is literally a response of 13 kilometers to a question of 1000m.

To an imposed plan and general idea, that Artigas does not share, he opposes an upsetting proposal. In that regard, there is a particularly eloquent passage of his famous text *Um lugar a Utopia*:

“Vejam que coisa curiosa: há um planejamento geral, a respeito do qual ninguém fala, mas no qual os pequenos planejamentos tem que ser inseridos. E o planejamento geral, em todos os tempos e até hoje, é de molde que a gente não se possa inserir. [...] O mal é que nós assumimos a responsabilidade de curar as feridas sangrentas de nossos meios urbanos através de um planejamento isolado do planejamento geral e este, muitas vezes, não coincide com o nosso. Isso não nos leva a um nível maior de desânimo porque, se não segurarmos com força a pequena bandeira das possibilidades de mostrar, com pequenos exemplos, o que poderia ser feito, certamente teremos que por de lado, logo de saída, as nossas mais caras esperanças”. (Artigas, 1975: 199).

The example that Artigas, with the proposal for dell'Anhangabaú Valley, wants to show is one of the key concepts of its architecture: the principle of spatial continuity. That is the same spatial continuity that pervades all of his projects, from the houses that do not end ever in the threshold of the door to the FAUUSP building. Here it is not directly the reconciliation of collective / private, public / private, but the represented spatial relationship is exactly the same (Bucci, 1998). The project of the Valley is the spatial continuity between a local enclosure, the valley itself at low altitude as an internal, and the metropolis at its upper level, as an external.

It is the concept of spatial continuity between these two dimensions, which directs and forges the project.

2.2 Higienópolis

Higienópolis is the name of a district that owes its origin to its health reputation, coupled with the geographical condition, that being the highest and the sunniest therefore shunned the insanity, rather characteristics of the nearby Campos Elíseos area.

The story of Higienópolis can stand out in three significant moments (Macedo, 1987).

The first is until 1898, when it was occupied exclusively by farmland and rural jobs; the second, from 1898 until 1933, when the single-family palaces of the upper class replaced them. Finally, it comes the moment of verticalization, since 1933 and in the following decades, where apartment buildings made the costume of collective dwelling to the elite Paulistana.

Casa de Dona Veridiana Prado, end of XIX century
Guia de Bens Culturais de São Paulo

Actually, the story of Higienópolis mingles with the history of Paulistana cafeeira elite. It represents the consolidation of the power of this middle-class elite precisely at a time when São Paulo has established itself as the protagonist of the national economic scene.

As Serapião (2014) observed, in the first decades of the twentieth century living in Higienopolis was the mostly chic status that could be considered in São Paulo.

In the painting *Cena de Família de Adolfo Augusto Pinto*, of the late XIX century, the engineer's family is observed in a moment of family intimacy. All the objects, the furniture and the clothing narrate the customs of the nascent Paulistana *bourgeoisie*. A direct and frank relationship combines the atmosphere of the hall with that of a flourishing garden, just beyond the window. The atmosphere is relaxed, quiet. It is the representation of the noble and wealthy tranquility of Higienópolis district.

Cena de Família de Adolfo Augusto Pinto, 1891
Pinacoteca do Estado de São Paulo

The urban morphology of that period will be cannibalized by the subsequent verticalization, from the 30s to 60s, yet that same atmosphere will continue to make Higienópolis an high level residential area, primarily because of the relationship with the gardens that will continue to characterize it.

Except for the isolated case of Praça Buenos Aires, the result of the project of the French landscape architect Joseph Antoine Bouvard on an expropriated land, the Prefeitura didn't plan any square or any other real public garden.

Edifício Lausanne (Franz Heep)

Ph: Leonardo Finotti

Christ and Gantembain (2015:4) denote as clearly in São Paulo “the Modernist aspiration to solitaire architectures morphed completely in the face of pressure to attain high density: buildings there are crammed in so close together that a coherent urban volume takes shape practically by default”. In Higienópolis the accumulation of individual episodes but similar insofar as to make a consistent overall volume is also true, above all, for the gardens. In fact, although they are definitely arisen from different project opportunities, what emerges is the impression of almost a unique ensemble.

Reflecting on the relationship between building and landscape in Brazil since colonial times, the writer Lins do Rego said that modern architecture in Brazil was able to reconcile man and nature, after three centuries of hostility, turning the heavy retreat of the Portuguese colonizer, a defense in the middle of hostile territory, into light open houses. No more “fortaleza contra o meio” but “poetic redução from natureza”. (Lins do Rego, 1952: 296).

“Le Corbusier foi, portanto, o ponto de partida para que a nova escola de arquitetura brasileira pudesse se exprimir com uma grande espontaneidade e chegar a soluções originais. Como a música de Villa-Lobos, a força expressiva de um Lucio Costa e um Niemeyer foi uma criação intrinsecamente nossa, algo que brotou de nossa própria vida. O retorno à natureza e o valor que vai ser dado à paisagem como elemento substancial salvaram nossos arquitetos do que se poderia considerar formale em Le Corbusier” (Lins Do Rego, 1952: 295).

The poetic image that Wisnik (2009: 218) depicts of the sinuous ramps, “como arabescos suspensos no ar, teatralizam essa libertação histórica, marcando a transição entre exterior e interior com um leve e movimentado préludio a céu aberto, criando um mirante a partir do qual se pode contemplar –de modo inesperado e talvez pela *última vez*- a natureza *virgem*”, refers to the work of Niemeyer. However it adapts well to many of the architectures of Higienópolis that, plunged into the gardens, often use the same device.

The architectures of Higienópolis, thanks to the *pilotis* plan, leave free a large part of the lot which is almost in its entirety usually treated rather like a garden, with varying degrees of openness toward the street; in fact they constitute a continuous and free ground floor, with an exuberant vegetal character. Some of these gardens bear the signature of renowned landscape architects, such as Waldemar Cordeiro or the same Burle Marx; all of them obviously reflect the great exuberance of tropical flora.

Higienópolis is a collection of more than 160 lots, conformed to this design attitude, and brings together the work of more than 90 architects. There are some of the most popular masterpieces of the '900 in São Paulo;

but what seems more relevant is the affinity existing between all of them and that creates a varied, but consonant, unique complex at the neighborhood scale.

One of the most common design mechanisms between these residential buildings, typologically, is the *lamina*: a pretty tight building, without windows on its short sides. The cases in which the system is composed of a pair of *laminas*, parallel to each other, are noteworthy; they articulate an intermediate space which accommodates a garden, that which a hybrid nature between public and private enriches the ground. Among them stands the Louveira building (Vilanova Artigas 1946-49) and the Lugano and Locarno (Franz Heep, 1959-62). Both make the permeability of the ground floor their prominent trait. In particular Artigas “did not design the [Louveira] complex with a façade onto the public space; instead, the square continues into the site where there is a charming semi-public garden animated by curving ramps”. (Wisnik, 2010).

Edifício Louveira
2G Higienópolis 2010

Another mechanism that may be encountered is that of the regress of the *lamina*. Also powered by the current legislation, this system allowed, especially if associated with *pilotis*, to treat the entire street front as a garden, which then become the real urban backdrop.

The Prudencia (Rino Levi and Burle Marx, 1944-48) and Baía-Mar (Francisco Beck, 1963-64) belong to this category. In front of the Prudencia were the gardens, designed by Burle Marx, and in the back open areas for a playground. The project recreated, albeit in an almost symbolic way, the atmosphere of courtyards of the typical single-family houses and palaces of the previous era of Higienópolis, as well as their gardens and the large vegetal areas. The same areas for social conviviality were trying to recreate the spirit of the old *alamedas*, the tree-lined streets that ran along the bourgeois palaces (Gagetti, Righi, 2001).

Edifício Prudencia
2G Higienópolis 2010

The Baía-Mar even gets to occupy only less than a quarter of the lot. The rest of the lot instead is treated as a garden and playground system, “visando a necessidade de criar espaços verdes em zona de habitação

coletivas” (Beck, 1964:46). The two streets, in which the triangular plot overlooked, were in other words freely integrated by the garden.

Edifício Baía-Mar (Francisco Beck, 1963-64)
Acrópole 309

Sadly, it should be recognized that the current situation of the system of Higienópolis has profoundly changed. Urban violence is one of the main arguments for the practice of fencing, so dramatically in vogue in Higienopolis as well as throughout São Paulo. Barriers and limits now enclose practically all the lots of Higienopolis, ending the continuous system of gardens, the pilotis ground floor and the open plan.

2.3 Centro Novo

In São Paulo, in the late XIX century, Jules Martin advanced the project of a series of galleries in the historical triangle of the old commercial area. The project, named “Galeria de Crystal”, put in connection several courtyards thanks to a system of covered walkways, like pedestrian-only alternative paths, in order to boost the commerce (Toledo, 1996). The intuition undoubtedly stemmed from the tradition of the European galleries, especially Parisian, bringing two of their characteristic traits: the overhead lighting and a spatial symmetry (Geist, 1983).

Galerias de Christal em São Paulo
Toledo, 1996

The area of Novo Center underwent a tremendous transformation, between the 30s and 60s. In this period, as well as in other areas of the city, modern buildings replaced the old houses.

This cultural climate is in fact associated with the emergence and consolidation, in Centro Novo, of a commercial galleries system, on the ground floor of the new modern buildings, which make a bold permeability and continuity relationship with the public space where they insert. The density of the galleries system is innovative, and can be easily identified within a quadrilateral defined by four spatial references of the central area of São Paulo: Praças da República, Praça Dom José Gaspar, Praça Ramos de Azevedo e largo do Paissandu.

- Olido 20. Galeria Apolo
Costa, 2010

Moreover, this attitude, as widely exposed by Sabrina Costa (2015) was strongly encouraged by the Prefeitura, through legislation. In particular, the Decreto-lei n. 41 of 1940 fuels this architectural practice:

According to Costa (2012) the permeability and spatial continuity are the salient features of these spaces. The first is related to the possibility to freely move and penetrate into the ground floor; the second is shown

instead as the ability to extend, towards the interior of the lot, the urban vitality, typical of the exterior public space.

Referring to the concept of permanence of Aldo Rossi, Jorge (2011) says that the case of the Centro Novo galleries are “a matter of past that keeps offering us lessons in urbanity that are never out of date”. That explains the responsibility of architecture towards the creation of a plural and inclusive social identity, so deeply necessary to contemporary cities.

Architecture can play a prominent role, especially thanks to the spatial configuration of collective spaces, as arenas in which key cultural interactions and societal dynamics take place and can be observed. In fact, public spaces both shape, and are shaped, by cultural integration.

In particular, the architecture of *the ground floor* can be able to have a decisive influence on social inclusion, as it was brilliantly exposed in the German pavilion at the 15th Venice Biennale, called “Making Heimat”.

In fact, the virtuous relationship between open and closed spaces plays a great role into the process of appropriation and interaction dynamics: the arrival city is on the ground floor (Schmal, Elser, Scheuermann, 2017).

Galeria Metrpole, ground floor. 2016
Personal archive

In this sense it is important to emphasize that the idea of public space to which these galleries refer, relates to the meeting places of casual contact and conviviality; traditionally associated with the street's space or the square, in this case however they are associated with the gallery space, since it is there that these dynamics were hosted (Costa, 2012).

2.4 Minhoco

The *Minhoco*, literally the “Giant Earthworm”, is the popular name given to the elevated highway that officially named Via Elevada Presidente Costa e Silva, which constitutes the so-called “East-West link”. It was built within a year and inaugurated in 1971, the decade in which So Paulo admitted in the first line of contemporary world of cities that is now one of the most influential leaders; So Paulo officially became the center of a real and global metropolis and during 70th decade was made up of 37 municipalities with 8 million population.

For So Paulo, in 1970, is the turning point of brilliant and authoritative development and technocracy thorough Juscelino Kubitschek's presidency (1956-1961). It is the patriotic atmosphere of the period so-called “economic miracle” when is an expression of *Great Brazil*.

24 de janeiro de 1971 Inauguration day advertisement Costa e Silva Viaduct “Minhocão”
Folha de São Paulo

The *Minhocão* perfectly represented that society. In 1970 the *Minhocão* was the ideological landmark of the moment when the European origins of São Paulo were abandoned. These European bases originated from city ideas that are strongly linked to public spaces and have a significant relationship with full and empty spaces. The city founded on the basis of the economic model of urban planning and the standards of those years for US cities (Caldana, 2011); São Paulo development was based on the road transport culture that influenced its fate severely.

The *Minhocão* cuts through the center of São Paulo with a length about 4.5 kilometers and in particular passes through the most traditional areas of the city, such as the *Bexiga* district. *Bexiga* was in fact the district, strongly characterized by Italian immigration, with a working-class neighborhood and intense cultural life due to its situation.

As expected, the drastic economic of the entire adjacent area devaluated immediately and inevitably. This devaluation occurred despite of being located in one of the most highly demanding city district because of its rapid verticalization.

Costa e Silva Viaduct, "Minhocão", week days
Ph Tuca Vieira

The construction of the *Minhocão*, and especially its location, exemplifies well the ideological shift of the city concept -or rather the society- in São Paulo during those years. The *Minhocão* inverted the significant hierarchy: the center of the city (and therefore the public space, a space for meeting, and the space of history) was downgraded to a passing corridor. The leading factor is the large-scale traffic circulation, for this reason it justifies the construction of the *Minhocão* elevated highway without any consideration of urban plot and central area of the city.

The *Minhocão* is a multiplication. It duplicated the road capacity, the speed of vehicles, access space for automobiles, asphalt and traffic. The size and measure of this remnant detect the political, social and economic problems and attempt to solve the predicaments caused by the city traffic (Campos, 2008).

The modern dream of multi-level cities and independent traffic flows immediately turned into a nightmare and nowadays it is like an open wound in the heart of the metropolis with 20 million inhabitants. The *Minhocão* now receives 80,000 cars a day. Right away the pollution generated due to *Minhocão* was intolerable and it was in dire need to adopt appropriate approaches to tackle it. As early as a few years after its inauguration, in 1976, it was decided to close it temporarily to reduce traffic at certain times. Temporary closures continue to be repeated until now and currently the *Minhocão* is closed every night as well as weekends and holidays.

It is extremely interesting to note that these ordinances, which arise solely for diminishing the traffic disturbances, lead to a happy fertility situation: the interpretation of collective creativity. The regulations dictated to limit the noise and air pollution, arrange unconsciously and unusually one of the collective imagination of a place, most notably on *Minhocão*.

When it is closed to traffic, the *Minhocão* is spontaneously interpreted as a public space of the city. Especially during the weekend, the *Minhocão* is now occupied by an impressive variety of urban tribes and teemed with vitality, energy and enthusiasm. On weekends, the *Minhocão* becomes another landscape: public space. Electronic festivals, bike races, training, craft markets, barbecues, photo shoots, are just some of the activities that carry out freely.

The spontaneous appropriation of urban spaces such as the *Minhocão* and the places become suddenly usable for diverse motivations can be realized as the most tangible expression of the collective imagination skills. Spaces like the *Minhocão* that seem to be inhospitable and unsuitable for specific uses, suddenly colonized and interpreted friendly in a very creative manner by the community.

Costa e Silva Viaduct, "Minhocão", São Silvestre's race
Ph Tuca Vieira/Folha Imagem

It is evident that the *Minhocão* has not undergone formal changes. Since its construction, it has not been modified in any way; what is radically changed, however, is its relationship with the city and its society and the way of thinking and living. Currently, with its multiple uses, it is certainly the symbol of a city that is debated; the symbol of a public sphere that is changing or tends to change; the symbol of a desire for urbanity.

Nowadays the *Minhocão* as a remnant embodies a *zeitgeist*, a spirit of global urban culture, which perhaps reaches the apex of intensity in São Paulo. There is a great interest of re-appropriation and re-signification of the city, free space and the public space.

The 2014 edition of the European Prize for Urban Public Space, set up in 1999 by the in Barcelona CCCB, had among the finalists Occupy Gezi, in Istanbul. In 2012 Acampada de Puerta del Sol in Madrid, also awarded a special mention. Attributing an architectural prize to popular "occupation" of public spaces, made or nothing more than people bodies, can be considered as a kind of confirmation of this global Zeitgeist we were talking about. The theme of the Bienale de Arquitetura of São Paulo of 2013 is highly emblematic too: "A cidade: modos de fazer, modos de usar", literally "The city: ways of doing, ways of using".

"Piscina no Minhocão" Luana Geiger, projeto participante da X Bienal de Arquitetura
Folha de São Paulo

The value of a place is its ability to appreciate and encourage the power of social imaginary. The *Minhocão* demonstrates effectively how public space should be conceived as a set of polarities; nowadays this place gratifies vocations, customs and expectations of a large diverse population, a place where skaters, runners, families and tourists meet and confront. The *Minhocão* governs by means of the conflict, the screech and the clutch. Li Wisnik (2016) notices "o espaço público [...] é um lugar de conflitos. Lá, como em qualquer outro espaço público saudável, há disputa entre skatistas, famílias e moradores. Esse conflito é um sinal positivo. O grande atributo da esfera pública é mediar o conflito, porque a sociedade, em si, é conflituosa. A ideia de um espaço sem conflitos é ideológica, uma pacificação irreal. Quando um espaço público não tem conflito é porque ele não está cumprindo sua função"

The *Minhocão* today certainly is not a solved space nor is an accomplished project.

However, it is very significant. From its story we can learn that public space should be conceived as the battle of the apparent oppositions; the coexistence of different customs, people and materials must be recognized as a value. In this way a project is not prescriptive, non-authoritarian, not decoration, but it is open, procedural and even permanent.

3 Epilogue

Historically, the development of the city of São Paulo, like every Brazilian cities under Portuguese colonization, followed no abstract plans to impose public order by means of city design. Contrary to the structuring grid that guides most cities of Spanish colonization around a plaza mayor, São Paulo and other Brazilian cities tend to be organized more around the adaptations of the urbanization of their irregular layouts and irregular plots than by overriding guiding principle. Equally, public squares were rarely a generator of urban form, but emerged rather from the leftover spaces in the irregular configuration of urban lots -called largos- or later the evolution of courtyards, patios and grounds (Teixera, Valla, 1999). They are, then, spaces were not initially conceived as public, and once became public, only precarious manages to remain so (Wisnik, 2016a). This kind of condition continue to persist, in an actual situation were cities follow the law of individualism, improvisation and urgency in the absence of any orchestrated vision for the public good. As Mello Franco (2005) said, in the history of São Paulo the private sector played the leading role that in most of the great metropolis was occupied by the State.

Therefore, what overall emerges from the projects and visions investigated in this article, is an attempt to deal with this condition and not to give up the ambition of designing collective spaces (Lima, 2014). In particular it is in the dimension of the ground floor that makes this ambition more possible and more effective.

The events and the projects investigated, although in their extreme diversity, are united by the concept of a "thickness of the ground", following the expression presented at the beginning of the text, where it is possible, even in the absence of a generally precarious vision, to *make the city*.

Bibliography

- AB'SABER, A. N. (1958). "Geomorfologia do Sítio Urbano de São Paulo." Doctoral thesis, FFCLH USP.
- ALEIXO, C. A. P. (2005). "Edifícios e galerias comerciais. Arquitetura e Comércio na cidade de São Paulo, anos 50 e 60." Maestrado thesis, Escola de Engenharia de São Carlos-Universidade de São Paulo.
- ANELLI, R. (2001). *Rino Levi arquitetura e cidade*. São Paulo Romano Guerra Editora.
- ANTONUCCI, D. (2006). "Morfologia Urbana e Legislação urbanística: Estudo de setores de bairros na cidade de São Paulo no Período de 1972/2002." Doctoral thesis, FAU USP.
- ANTONUCCI, D. (2006). "Higienópolis: formação e transformação." *Cadernos de Pós-Graduação em Arquitetura e Urbanismo* 6 (1).
- ARTIGAS, J. B. V. (1974). *Parque Anhangabaú*. São Paulo PMSP.
- ARTIGAS, J. B. V. (1975). "Um lugar à Utopia." In *Vilanova Artigas*. São Paulo Instituto Lina Bo e P. M. Bardi / Fundação Vilanova Artigas.
- ARTIGAS, J. B. V. (1976). "Projeto de Reorganização do Parque do Anhangabaú e sua extensão pela via arterial norte-sul." *Módulo* 42.
- BECK, F. (1965). "Edifício de Apartamentos." *Acrópole* 309.
- BUCCI, A. (1998). "Anhangabaú, o Chá e a Metrópole." Maestrado thesis, FAU USP.
- BUCCI, A. (2010). *São Paulo, razões de arquitetura: da dissolução dos edifícios e de como atravessar paredes*. São Paulo: Romano Guerra.
- BUCCI, A. (2015). *The dissolution of buildings*. New York: Columbia University Press.
- BURLE-MARX, R. (1974). "Testimonial to Rino Levi." In *Rino Levi*, edited by Rino Levi. Milano: Edizioni di Comunità.
- CALDANA, V. (2011). "São Paulo Cidade Planejada." In *Projetos Urbanos em São Paulo: oportunidades, experiências e instrumentos*, edited by Campagner Larissa Caldana Valter. São Paulo Livre Expressão.
- CAMPOS, C. M. (2008). "Eixo da ambiguidade: a região da avenida São João nas inversões do tempo." In *Caminhos do elevado: memória e projetos*, edited by Rosa Artigas. São Paulo Sempla Dipro.
- CELLINI, F. (1992). *Architettura e città: alcune questioni compositive*. Palermo: Università degli studi di Palermo.
- CORBUSIER, Le. (2015). *Precisions on Present State of Architecture and City Planning*. Zurich: Park Books.
- COSTA, S. S. F. (2010). "Relações entre o traçado urbano e os edifícios modernos no Centro de São Paulo. Arquitetura e Cidade (1938/1960)." Doctoral thesis, FAU USP.
- COSTA, S. S. F. (2012). "Continuidade e permeabilidade urbana nos arranha-céus modernos do Centro de São Paulo." *Pós. Revista do Programa de Pós-Graduação em Arquitetura e Urbanismo da FAUUSP* 19.
- COSTA, S. S. F. (2015). *Edifícios modernos e o traçado urbano no Centro de São Paulo (1938-1960)*. São Paulo Annablume.
- EDUARDO F., SHUNDI C. (2013). *Salvador Candia*. São Paulo Editora da Cidade.
- CHRIST E.I, GANTEMBEIN C. (2015). "Modern cities." In *Typology*, edited by EASTON V., CHRIST E., GANTEMBEIN C., GATTIGO C. Zurich: Park Books.
- FERRAZ, M. C. (1997). *Vilanova Artigas*. São Paulo Instituto Lina Bo e P. M. Bardi / Fundação Vilanova Artigas.
- FILGO, N. G. R. (1974). "The architecture of Rino Levi." In *Rino Levi*, edited by Rino Levi. Milano: Edizioni di Comunità.
- FRANCO, F. M. (2005). "A construção do caminho." Doctoral thesis, FAU USP.
- GEIST, J. F. (1982). *Le Passage. Un type architectural du XIXe siècle*. Liège: Pierre Mardaga.
- GUERRA, A. (2010). *Arquitetura brasileira viver na floresta*. São Paulo Instituto Tomie Ohtake.
- HEREÑÚ, P. E. (2007). "Sentidos do Anhangabaú." Doctoral thesis, FAU USP.
- HIROYAMA, E. H. (2010). "A Dimensão Urbana da Arquitetura Moderna em São Paulo. Habitação coletiva e espaço urbano 1938/1972." Maestrado thesis, FAU USP.
- JORGE, L. A. (2011). "São Paulo: transformation and preservation for a cosmopolitan culture." *Area* 114.
- KOOLHAAS, R. (1995). "What ever happened to Urbanism?" In *S, M, L, XL*, edited by KOOLHAAS R., MAU. B., New York: Monacelli Press.
- LACATON A., VASSAL J. (2012). "Surplus. Lacaton Anne and Jean-Philippe Vassal in Conversation with Mathieu Wellner." In *Reduce / Reuse / Recycle. Architecture as Resource*, edited by PETZET M. Berlin: Hatje Cantz.
- LASSUS, B. (2004). *Couleur, lumière, paysage*. Paris: Éditions du patrimoine.
- LÉVI-STRAUSS, C. (1960). *Tristi tropici*. Milano: Il Saggiatore.
- LÉVI-STRAUSS, C. (1996). *Saudades Do Brasil: A Photographic Memoir*. Washington: University of Washington Press.
- LIMA, Z. (2014). "Uno spazio per la libertà in una città di muri." In *São Paulo. Ritratti di città*, edited by Daniele Pisani. Bologna: Editrice Compositori.

GAGETTI L. F., RIGHI R. (2001). "Verticalização e produção de edifícios residenciais no bairro de Higienópolis de 1933 a 1964." *Cadernos de Pós-Graduação em Arquitetura e Urbanismo* 1.

MACEDO, S. S. (1987). *Higienópolis e arredores: Processo de Mutação de Paisagem Urbana*. São Paulo Pini.

MAIA, F. P. (1930). *Estudo de um Plano de Avenidas para a cidade de São Paulo*. São Paulo Melhoramentos.

MAIA, F. P. (1945). *Os melhoramentos de São Paulo*. São Paulo Prefeitura Municipal de São Paulo.

TEXEIRA M., VALLA M. (1999). *O urbanismo português: séculos XIII-XVIII, Portugal-Brasil*. Lisbon: Livros Horizontes.

METTA, A. (2015). "New Practices " In *On the Move #4 Landscape architecture Europe*, edited by DIEDRICH L. Wageningen: Blauwdruk.

MEYER, R. P. (1999). "A construção da metrópole e a erosão do seu Centro." *Apud Revista Urbs* 14.

MORETTI, L. (1953). "Strutture e sequenze di spazi." *Spazio* 7.

SCHMAL P. C., ELSEER O., SCHEUERMANN A. (2017). *Making Heimat. Germany, Arrival Country*. Berlin: Hatje Cantz.

PISANI, D., ed. (2014). *São Paulo. Ritratti di città*. Bologna: Editrice Compositori.

PRADO, C. J. 1933. *Evolução política do Brasil e outros estudos*. São Paulo Editora Brasiliense.

PUNTONI, A. (2008). "Edifício residencial na Rua Itacolomi. Memorial." accessed 13.02.2017. <http://www.grupospa.arq.br/?p=984>.

REGO, J. L. (2003). "O homem e a paisagem." In *Depoimento de uma geração. Arquitetura moderna brasileira*, edited by XAVIER A. São Paulo Cosac & Naify.

SERAPIÃO, F. (2014). "Moderno nas alturas." *Monolito* 19 (Higienópolis).

SOMEKH, N. (2015). "Patterns of vertical growth: from urban reconstruction to sprawl." In *Typology*, edited by EASTON V., CHRIST E., GANTEMBEIN C., GATTIGO C. Zurich: Park Books.

TOLEDO, B. L. (1996). *Prestes Maia e as origens do urbanismo moderno em São Paulo*. São Paulo Empresa das Artes.

TOLEDO, B. L. (2004). *São Paulo: três cidades em um século*. São Paulo: Cosac & Naify.

WISNIK, G. (2009). *Estado crítico. À deriva nas cidades*. São Paulo PubliFolha.

WISNIK, G. (2010). "Louveira Building." 2G 54.

WISNIK, G. (2012). "Public Space on the Run. Brazilian Art and Architecture at the End of the 1960s." *Third Text* 26 (1).

WISNIK, G. (2016). "Where to for Brazil's cities?" *Architectural Design* 3.

WISNIK, G. (2016 13th January) "Na era Lula achávamos que a cidade seria democratizada, mas não foi." *El País Brasil*.