



TRANSITION BETWEEN INTERNAL AND EXTERNAL AREAS OF BUILDINGS WITH FREE GROUND IN SÃO PAULO AND NEW YORK

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ABSTRACT

The article compares urban legislation and its spatialization in buildings with free ground, in São Paulo, Brazil and New York, USA, during the same period. In São Paulo, from 1930, with the Prestes Maia Avenues Plan, road works boosted real estate production in the new city center, constructing buildings with galleries or joint buildings (multifunctional programs), which favored commercial use of the free ground. The Municipal legislation provided this architectural solution as a counterpart for buildings verticalization. Afterwards, this model spread to the areas of the Paulista and Faria Lima avenues. In New York, from 1960, mainly in Downtown and Midtown, the local legislation encouraged the construction of Privately Owned-Public-Spaces. These were transition areas between public and private spaces, initially as open areas named *plazas* or covered areas named *arcades*. The comparison shows that in New York, there is a considerable amount of these spaces that do not articulate with urban road works. In São Paulo, on the other hand, road works were used to produce passages and galleries. In both cases, the benefits to the permeability and connectivity of the urban fabric are relevant.

Keywords: Galleries. Porches. Transition spaces. São Paulo. New York.

RESUMO

O trabalho compara a legislação urbanística e sua espacialização em edifícios com térreo livre, para São Paulo, Brasil, e Nova Iorque, EUA, em períodos concomitantes. A partir de 1930, com o Plano de Avenidas de Prestes Maia, obras viárias em São Paulo impulsionaram a produção imobiliária no centro novo, construindo-se edifícios com galerias ou com programas multifuncionais com uso comercial nos terraços livres. A contrapartida do poder público à verticalização dos edifícios desejada pelo mercado imobiliário foi a legislação estudada. Esse modelo alastrou-se nas áreas da Paulista e Faria Lima. No caso de Nova Iorque, após 1960, sobretudo no Downtown e no Midtown, a legislação incentivou a construção de áreas de transição entre espaços públicos e privados, inicialmente como áreas abertas denominadas *plazas* ou cobertas denominadas *arcades*. A comparação mostra que, em Nova Iorque, há quantidade considerável desses espaços, que não se articulam com intervenções urbanísticas viárias, enquanto em São Paulo, as obras viárias serviram para produção de certo número de passagens e galerias. Em ambos os casos os benefícios à permeabilidade e à conectividade do tecido urbano são relevantes.

Palavras-chave: Galerías. Pórticos. Espaços de transição. São Paulo. Nova Iorque.

INTRODUCTION

According to Rudofsky (1969), in countries where street functions have not been impaired by motorways and parking lots, some solutions have made roads more suitable for human beings. In this sense, the porches are a tangible expression of civic solidarity.

The use of porches in architecture predates classical antiquity, but it was in the Greco-Roman civilization that these elements began to configure the transition between indoor and outdoor areas, with circulation and permanence functions, similar to those found today in commercial areas of European cities and in the Americas. At least one example of a commercial gallery can be found in antiquity, as Geist (1983) points out in the case of Trajan's Market (110 A.D).

The Greek *stoa* had similar uses to the Roman porches, which spread throughout the European continent, transcending the internal spaces of the palaces and *domus*, finding in the Roman *insulae* a configuration closer to the current one, especially in Mediterranean Europe. The Roman urban planning program, disseminated by the colonies, emphasized the use of porches as an integral element of buildings of a religious, administrative or leisure nature, as well as for the connection between them.

In the High Middle Ages, the urban world ebbed and porches were limited to religious use, but it is, especially in Italy, from the 12th century onwards, that the transition between the urban and the architectural once again spread, reaching nearby territories, such as those corresponding to France and Spain. It is notable the use of porches in Italian cities such as Bologna, Padua, Genoa, Turin and Vicenza, still in the medieval period.

Since the Spanish colonization in America, the use of porches has been adopted in new territories, with this sense of integration of indoor and outdoor areas,

from the Spanish *plazas mayores* producing important examples such as La Havana, Mexico City, Quito and Cusco. In colonial Brazil, the use of porches was limited to religious buildings. In northern Europe, even in countries with a Roman urban heritage, such as England, the use of porches did not have an impact on their American colonies.

However, in Paris, Milan, Brussels or Naples, in the 19th century, porches often merge with commercial galleries, offering pedestrians comfort and protection from the weather. According to Benjamin (1962), most galleries or passageways appeared around the end of the 1830s. Because of the textile market, they started to house the luxurious trade of industrial products for the emerging bourgeoisie. According to the author (GUIA ILUSTRADO DE PARIS *apud* BENJAMIN, 1962, p. 146), these “passages are a city, a miniature world”¹. The construction of these passageways also presents the innovative use of industrial materials such as iron and glass, the latter providing zenith lighting that is also new in its aesthetic design. Geist (1983) pointed out seven characteristics of the passageways: access to the interior of the block, public space on private property, symmetry of space, natural lighting, access system to spaces of different uses, form of organization of retail trade, and transition space.

When approaching the adoption of porches and galleries, for the integration between outdoor and indoor spaces, this work discusses models adopted in São Paulo and New York based on the analysis of the urban legislation that provided them, applied practically at the same time in these cities. The criterion for choosing these cities does not include the source matrix, because for both the research addresses urban legislation and its spatialization resulting from interventions addressed in the discussions of 20th century urban theories. Factors such as the permeability and connectivity of the urban fabric and the offer of areas of enjoyment were analyzed. For São Paulo, when identifying the main

¹ “Sicché un passaggio del genere è una città, anzi un mondo in miniatura”.

characteristics that the law proposed, it was verified the building occupation registered in the Sara Brasil Map, elaborated in 1930, and its transformations resulting from the analyzed legislation. For New York, the georeferencing of private spaces for public use was used, from the city's official incentive program, contained on the website of the Advocates for Privately Owned Public Space.

In the second half of the 20th century, amid the predominantly European discussion about modern urbanism, whose theories favored public space and the detachment of the architectural program between the tower and the ground floor in some cases, the city of São Paulo, as well as some cities in the United States, began to encourage the offer of private spaces for public use, in areas with great pedestrian circulation, also providing for the construction of covered walkways, with the use of porches. In São Paulo, the strategy adopted for the transition between indoor and outdoor areas of buildings, commercial or not, favored the dissemination of the use of commercial galleries in central areas such as the new center and, subsequently, in the areas of Paulista and Faria Lima avenues. Although covered private areas for public use, called *arcades* in New York, do not always use porches as a spatial and structural solution, these are widely used in areas with a high concentration of commerce and services, on sidewalks with high impedance, such as Downtown and Midtown Manhattan.

SÃO PAULO PASSAGES AND GALLERY SYSTEMS

São Paulo presents, in the 20th century, a recurring urban form in the area of the new center, with the construction of commercial galleries on the ground floors of buildings or multifunctional complexes. Among the academic studies surveyed, we highlight the authors Aleixo (2005) and Costa (2012), who deepened their research and survey of galleries in this area. This configuration was not restricted only to the central region, but spread to Paulista Avenue and, at a later stage, to Faria Lima Avenue.

The embryo of what would become the interconnection between streets from galleries, became public in the late nineteenth century, following the proposal of a lithographer and professor at the São Paulo School of Arts and Crafts, Jules Martin. The objective of his project “Galleries of Crystal in São Paulo”, from 1890, presented to the Municipal Administration on October 29, 1890 (TOLEDO, 1996), was to interconnect streets in the old center (known as Triângulo), between José Bonifácio Street and 15 de Novembro Street, crossing Direita Street, Quitanda Street and Rua do Commercio (*sic*) (currently Álvares Penteado Street), from the construction of galleries, along the lines of European cities of the late 19th century, such as Milan, Genoa, Naples and Brussels. Jules Martin's project indicates that the galleries would have a glass roof (hence the name Galleries of Crystal), three floors about 14 meters high and shops on the ground floor. His proposal was not carried out, as it would require large sums for expropriations.

However, in 1928, the Guataparazinho building, owned by the Count Attilio Matarazzo, president of Guatapará Agricultural Company, was inaugurated, which was intended for offices of Conde companies and in the project it was opted for commercial use on the ground floor with the Casa Guatapará store, which commercialized the Company's products. In the early 1930s, a renovation was carried out on the ground floor and the first gallery opened in the expanded center of the city, Guatapará Gallery, at Barão de Itapetininga Street, No. 108, which allowed the passage to 24 de Maio Street. An eclectic building, whose authorship of the project has not yet been identified and probably had the performance of the Ramos de Azevedo Office on the facade of 24 de Maio Street. The legislation of the Arthur Saboya Code reflected on the renovation of the building's ground floor, considering that it dates from 1929 and the renovation was inaugurated in 1933. In art. 162 of the said Code, it is stated that “on the ground floor, daytime and sleeping compartments are allowed, if there is sufficient ceiling height and sunshine. Sole paragraph – can be used for commercial uses, if there is ceiling as in art. 117, 3rd paragraph”. In this article, the store ceiling should be 4 meters.

In Art. 164, which deals specifically with stores and mezzanines, the need for a toilet (latrine) is practically established, but there is no information about commercial galleries. This building was one of the first tall buildings in the new center and brought an impulse to the region for the construction of other buildings with these characteristics. At the time of expansion from the old center to the new, the expansion of the commercial area through galleries perpendicular to the main luxury shopping street of the time, Barão de Itapetininga Street, was a promising investment for small entrepreneurs.

Decree-Law no. 41, of August 3, 1940, sought to encourage the real estate enterprise focused on Ipiranga Avenue, based on an architectural design combined with functions that make sociability possible, understood here as the possibility of permanence and passing through spaces that could be galleries, setbacks, colonnades or *arcades*. In its Art. 9, we read that:

Buildings with more than 20 floors should have a recess level (portal, gallery, colonnade or open arch) on the public walkway, occupying at least 1/3 of the front of the lot, with depth and surface never lower, respectively, than 3.5 meters and 30 m² (SÃO PAULO, 1940).

Complemented by the sole Paragraph that establishes:

[...] the City Hall will study the opportune concession of special favors for buildings that do not have very high bodies (art. 4) and whose ground floors have setbacks, galleries, colonnades or *arcades*, equivalent to an extension of the sidewalks, usable for coffee tables, bars, etc. (SÃO PAULO, 1940).

Here, it is understood, between the lines, according to Costa (2011), that the interest of the City Hall was to encourage the real estate market to produce spaces that favor social coexistence in exchange for the verticalization desired by this market. Law No. 4615, of January 13, 1955, in paragraph 4.14 deals with Galleries:

The galleries of internal passages through buildings, extending from street to street, must have corresponding width and ceiling, at least 1/25 of their length, observing the minimum of 2.50 meters in width and 3 meters on the ceiling. (1) When these galleries give access to commercial establishments (stores), they will have, at least, free and unimpeded width and ceiling corresponding to 1/20 of their length, observing the minimum of 4 meters for both (width and ceiling). 4.14.2 – The lighting of the galleries may occur exclusively through the access spans, as long as the length of the galleries does not exceed 5 times their width. For excess lengths, the gallery must have additional lighting, in accordance with the provisions of article 4.1.17 (SÃO PAULO, 1955).

Paragraph 5.6, which deals with Commercial and Office Buildings, provides that:

The stores must satisfy the following requirements: e) stores that have access through passageways are exempt from natural lighting and ventilation, when they have depth equal to, at most, the width of these galleries and have the point furthest from their front, far from the mouth of the gallery, at most, 5 times the width of the gallery. (SÃO PAULO, 1955).

In a survey carried out between 2018 and 2019, the galleries shown on the map in Figure 1 were identified for the new center and, in Figure 3, for the region of Paulista Avenue. In addition to the land issue, Figure 1 allows to observe the road layout, reinforced by the irradiation ring of the Prestes Maia Plan. With the exception of the Eiffel Building, which was built further away from this road axis, Ipiranga Avenue along República Square is the limiting axis of this configuration with galleries, continuing through São Luís Avenue, on whose two sides there is conformity in this urban form. In the new center, this spatial configuration formed a *unicum* that has borders on Timbiras Street, at the confluence with Guaianazes

Street and with Cinerama Gallery, which gives access to Ipiranga Avenue. Following through Ipiranga Avenue to Araújo Street, Consolação Street and São João Avenue. Still in this Figure 1, the Cinerama Gallery

(number 22) shows how this *unicum* from the new center can be understood as a system, as it establishes the connection with the Santa Ifigênia region, in the Campos Elíseos neighborhood.

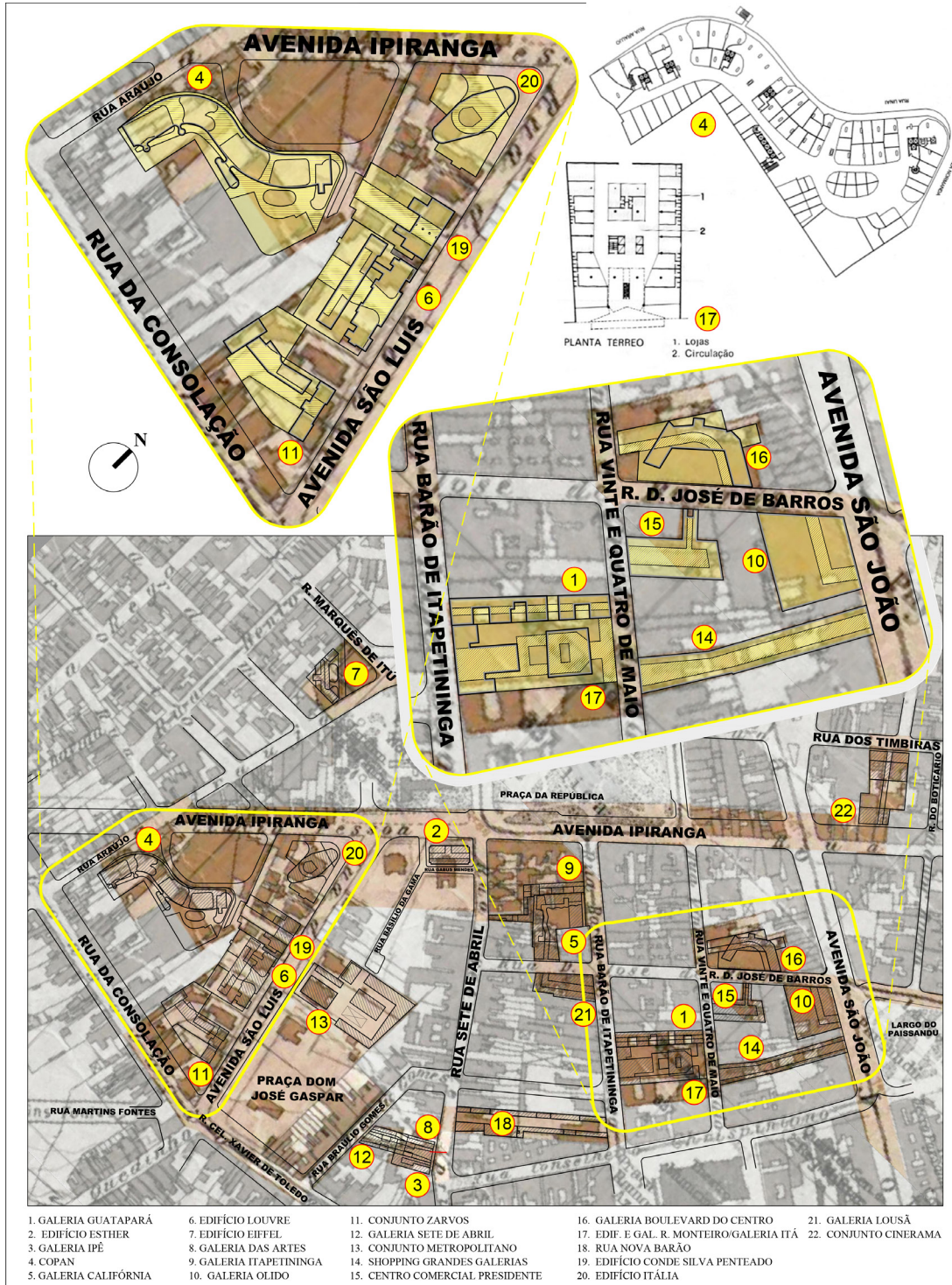


Figure 1 -
General plan of the
galleries in the New
Center
Source: Survey
prepared by Ricardo de
Almeida (2018).

The Sara Brasil Map, from 1930, made it possible to know how the process of replacing the brick architecture of the mansion or the palace for the reinforced concrete skyscraper occurred. Nevertheless, it is also possible to identify the new land conformation of land division, as shown in Figures 1 and 4, which led to the existence of passageways or galleries, often implanted in the same lots that housed single-family houses. In others, as in the case of Louvre Building or Conjunto Metr pole, lots were merged.

In the photo in Figure 2, some examples of galleries are shown in the area of the new center. The Nova Bar o Gallery, with a multifunctional program, is a project by the Genoese architect and developer

Ermanno Siffredi with Maria Bardelli and the artist Bramante Buffoni, being the only open air passage in this area. There is another open air gallery, also the result of a similar proposal, carried out by the same professionals, at Augusta Avenue, Le Village Gallery (see Figure 4, gallery 2).

On the other hand, Law No. 5114, of February 28, 1957 (S O PAULO, 1957), required that the buildings facing the streets Direita, S o Bento, 24 de Maio and 7 de Abril had galleries next to the alignments. For the two streets of the new center, 24 de Maio and 7 de Abril, art. 1, paragraph 2, determined that the free internal width of the galleries should be 4.40 m. As shown in the map in Figure 1, between S o Jo o



Figure 2 - Examples of galleries in the New Center
Source: Ricardo de Almeida (2018).

Avenue and Barão de Itapetininga Street there are at least six galleries, which allow the intra-block passage. Of these, five are in the alignment of 24 de Maio Street.

According to Feldman (1997), in the late 1940s, the city of São Paulo had three different processes of urban transformation: intensification of verticalization, expansion of the periphery and restructuring of centrality preparing the territory for its metropolization that will occur during the 1950s-60. However, since the Study for a Plan for Avenues of 1930, prepared by Prestes Maia, the city of São Paulo only had a Plan approved in 1971, the Integrated Development Master Plan, after the preparation of the Basic Urban Plan of 1968, but which has not been presented to the City Council. Therefore, the city suffered structural road interventions, which reconfigured its urban form, but which at the same time opened fronts for real estate production. One of them was the irradiation ring, with an emphasis on the Ipiranga and São Luís avenues, which are examples of this urban operation. In the 1950s, the Municipal Department of Urbanism's main activity was road urbanism, which received criticism from the technicians who composed it, such as the engineer-architect Carlos Brasil Lodi, disciple of Luiz Ignácio Romero de Anhaia Mello. We have to consider, then, that in this long period without plans, an approximation with the North American theories of zoning was being developed in the municipal agency of Urbanism. According to Feldmann (1997), this occurred from the moment when Anhaia Mello started to work in the Department of Urbanism. In addition, while the Zoning Law was not formulated, which was only enacted in 1972, municipal decrees were issued with clear determinations on the configuration of galleries.

The map in Figure 3 is especially interesting, as it shows the permeability that the galleries give to the urban fabric, with the intra-block passages connecting two areas of the city center.

Between the city's rivers, galleries and/or passageways are identified on the ground floor of the buildings, in addition to those in the new center. These are the intersections of Paulista Avenue/Augusta Street and Paulista Avenue/Brigadeiro Luís Antônio Avenue that

will be identified as the second phase and, as the third phase, Faria Lima Avenue, in the stretch between the avenues Cidade Jardim and Rebouças. It is interesting to note that the area with galleries from Paulista Avenue and Faria Lima Avenue is characterized by the moment of São Paulo's metropolization process. The pattern of galleries at Faria Lima Avenue repeats what was observed at Paulista Avenue, that is, it does not have the permeability of blocks forming a system of galleries, as in the new center.

Figure 4 shows the existing galleries in the region of Paulista Avenue, whose concentration is at the intersections mentioned. The one at Augusta Street has two important complexes, the Conjunto Nacional, a project by David Libeskind, from 1955, and Center 3, a renovation project by Ruy Ohtake, from 2000, which allows access and the intra-block crossing between the Santos Avenue and Luís Coelho Street, with access to Augusta Street, as shown in the same figure. Not all Augusta Street galleries allow passage from one street to the other, as most of them have only a sequence of stores in a reentrant and restricted space, covered or not, with small stores, without permanence areas designed *a priori*. The galleries designed by Jorge Wilhelm in 1962, the Ouro Velho Gallery and the Ouro Fino Gallery stand out, as well as the Le Village Gallery designed by Siffredi and Bardelli.

At the other intersections, the galleries on Paulista Avenue, whose examples are shown in Figure 5, do not always allow internal passage between one street and another, and therefore the same pedestrian permeability found in the new center. Examples of this situation are the Conde Andrea Matarazzo Gallery, a project by Roger Zmekhol, from 1975, located at Casa Branca Avenue, the intersection of Pamplona Street or Brigadeiro Luís Antonio Avenue, with Nações Unidas Building Gallery, a project by Abelardo Riedy de Souza, from 1953. With the exception of the latter, which allows the passage from Paulista Avenue to São Carlos do Pinhal Street, there is no doubt that the most permeable example is the Conjunto Nacional, due to its generosity in dimensions and connections to the outside, but that always a space for pedestrian passage.

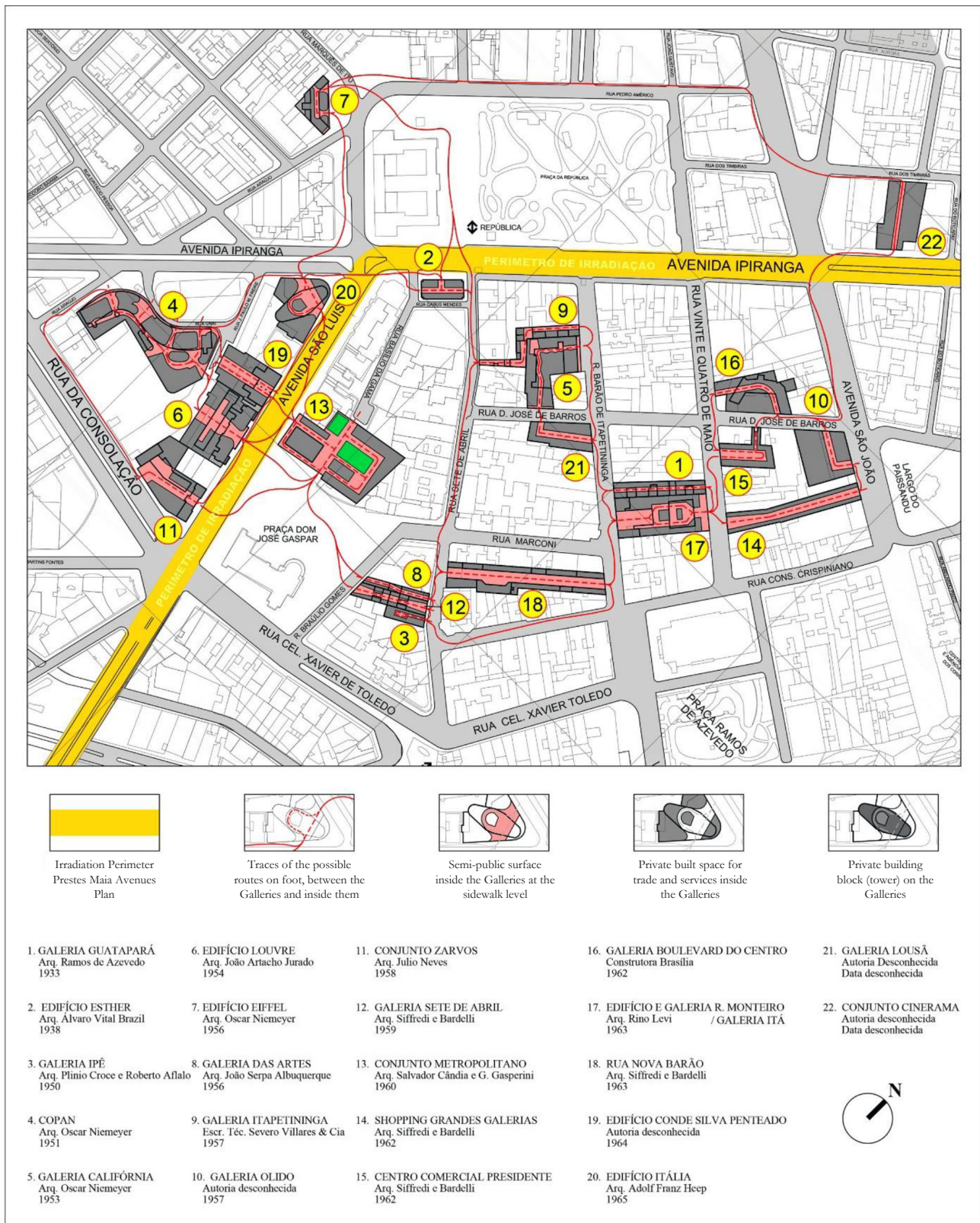


Figure 3 - Permeability of galleries with pedestrian paths
Source: Survey prepared by Ricardo de Almeida (2018).

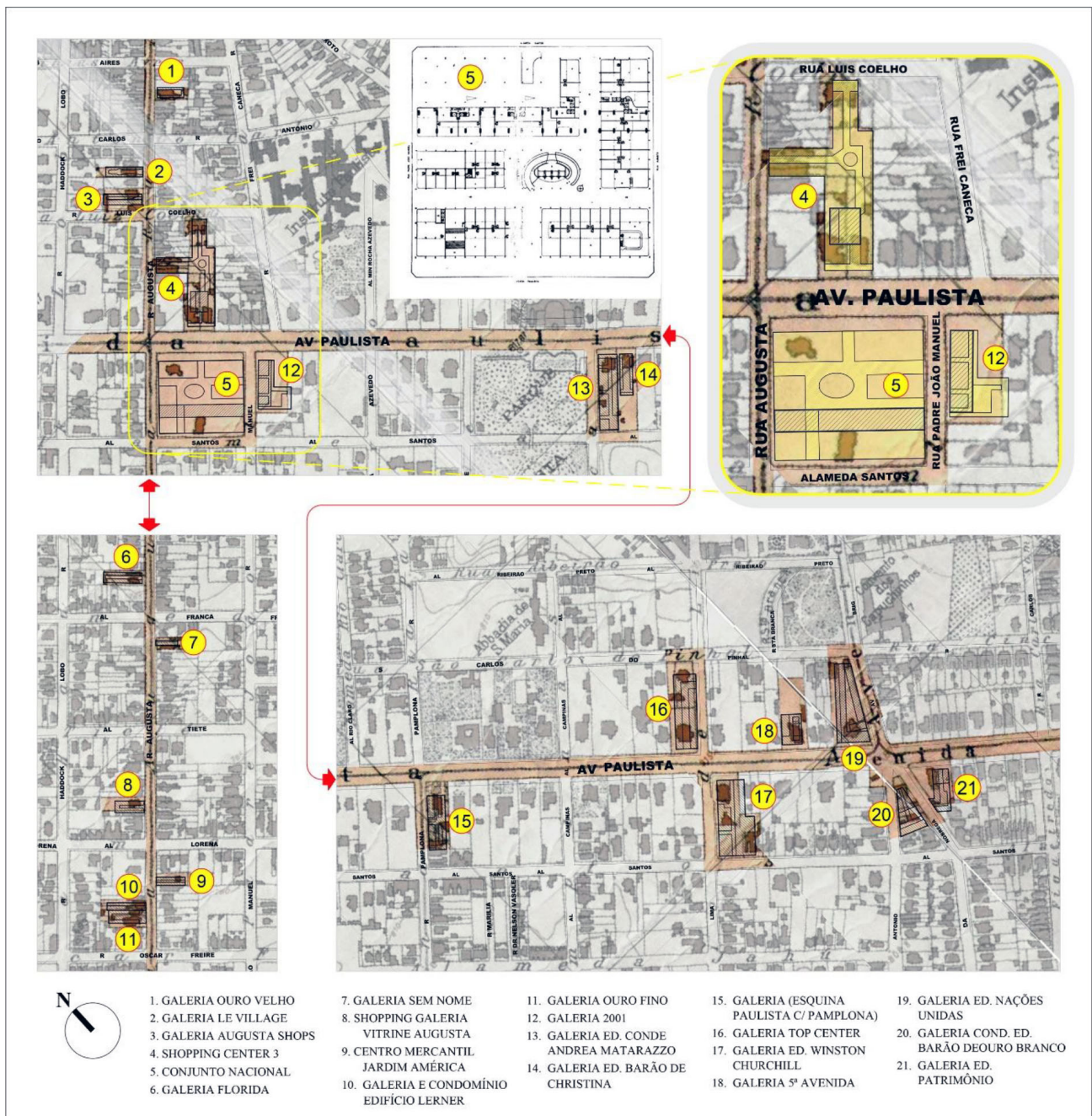


Figure 4 - General plan of the galleries on Paulista Avenue
Source: Survey prepared by Ricardo de Almeida (2018).

The set of passageways and galleries in the areas of the avenues Paulista and Faria Lima are not configured as the system that here is called *unicum*, as seen in the new center. They are concentrated in certain important road nodes, but do not generate

intra-block passages with access to several streets; except for the exceptions already noted. The galleries on Augusta Street do not allow crossing, they are just extensions of the commercial area of the street where they are located.



Figure 5 - Representative galleries in the area of Paulista Avenue
Source: Ricardo de Almeida (2018).

NEW YORK'S PRIVATELY OWNED-PUBLIC-SPACES

Another important case is that of New York, which implemented, in 1961, a program to encourage the construction of private spaces for public use, based on the experience of some real estate projects built in the first half of the 20th century. In this American city, the production of open and covered private areas for public use started to be encouraged by regulations then established.

The New York experience is interesting, as it allowed the construction of hundreds of squares and covered intra-block passages, some with porches, in consolidated and extremely dense urban areas, in which the cost of expropriation is prohibitive. It is a case to be confronted with the tradition of Mediterranean Europe, which sometimes makes use of incentives, sometimes seems to meet what Bacon calls the “principle of the second man” (MORRIS, 2013; BACON, 1976), whose most important example is the construction of the porches of Piazza della Santissima Annunziata, in Florence.

This author points out that, in the construction of the loggia in front of the basilica that gives its name to the square, a work by Michelozzo di Bartolomeo, as well as in the later implementation of the Loggia dei Servi, by Sangallo, the architects abandoned any authorial vanity, adopting the same building solution, used splendidly by Brunelleschi, in the porches of the Spedale degli Innocenti, composing a homogeneous complex in three of the four block in front of the square.

The examples of negotiations involving public entities and private owners, in Italian cities such as Genoa and Bologna, since the 12th century, at least, demonstrate that the strategy of urban incentive can be successful.

When it comes to ensuring a good urban quality interface, between public and private space, the case of New York is unique, having influenced other large American cities, presenting a morphological variety of solutions. However, the production of covered porch-like areas on sidewalks, despite being one of the solutions adopted, is quite dispersed and does not have continuity in tested

of juxtaposed lots, as in the European case, mainly due to the adoption of lateral setbacks. However, when this alternative occurs, the system of architraves supported on pillars is adopted, often functioning as a transition to the structural system of the other floors, in view of the technological advances of the 20th century.

New York production in these areas, with few exceptions, is concentrated in places with high construction and tertiary density, such as Downtown and Midtown Manhattan, consisting of the production, mostly encouraged, of private areas for public use under large commercial tower buildings (Figure 6).

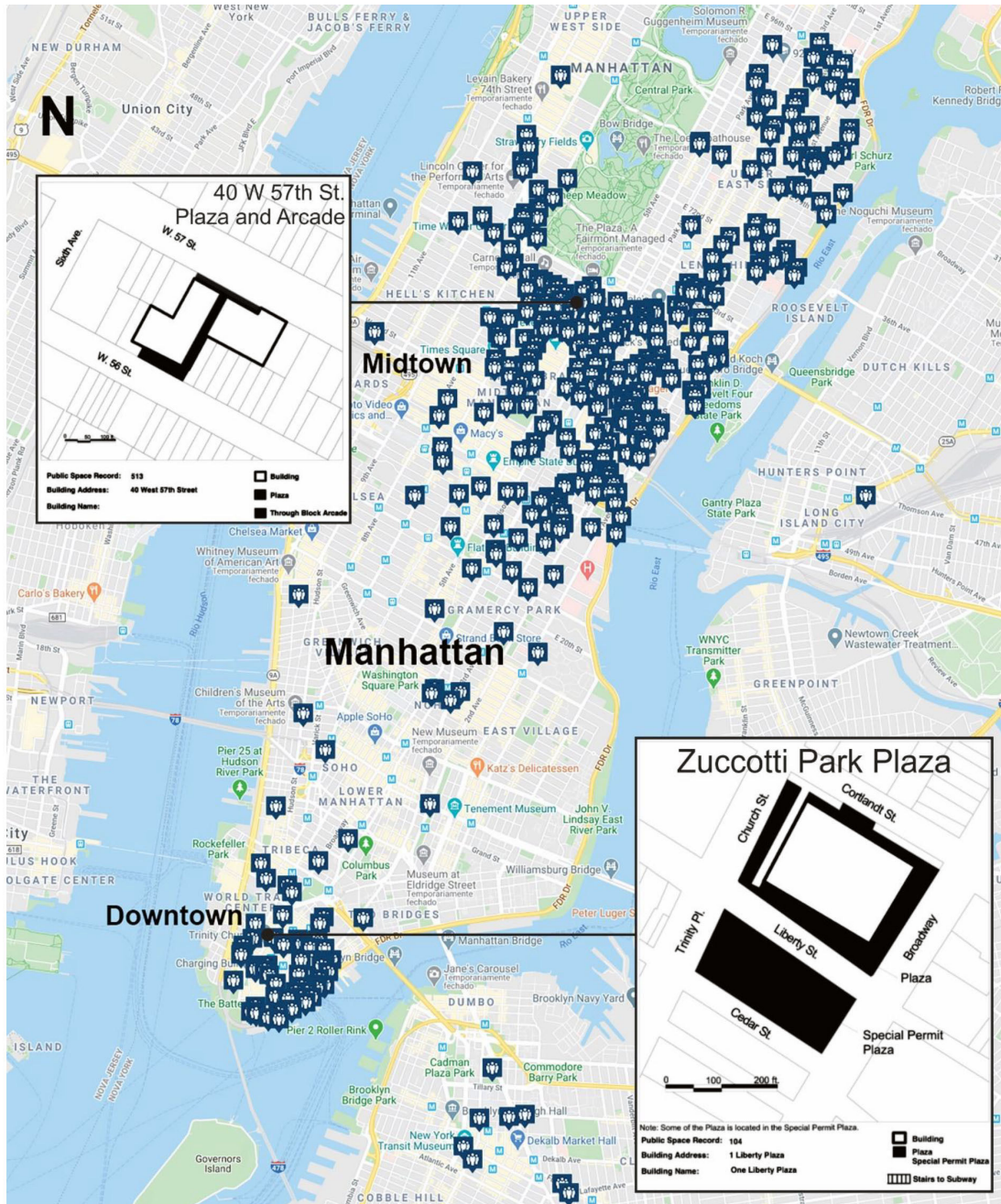


Figure 6 - Location of New York standardized POPS
 Source: <https://apops.mas.org/find-a-pops/>. Accessed on Aug 10, 2020.

The 1961 New York zoning (NEW YORK, 1961) regulated and encouraged these areas, officially called Privately Owned-Public-Spaces (POPS). For the most part, they are uncovered areas, called *plazas*, but sometimes allow intra-block connections, usually covered, which are called *arcades*. There are also *arcades* that do not connect roads, but they are the minority. Some *arcades* are connected to *plazas* forming a complex (Figure 6).

Prior to regulation, some New York vertical developments already offered these amenities, such as the Rockefeller Center, built on Fifth Avenue in Midtown in 1930 by Associated Architects. Other striking examples of this pre-regulatory period are the Lever House, designed by Gordon Bunshaft

and Natalie de Blois, from 1952, located at 390 Park Avenue, as well as the Seagram Building, designed by Mies van der Rohe and Philip Johnson, 1958, located at 375 of the same avenue. The Lever House offers private covered areas for public use, with the ground floor almost entirely free, under a slab supported by pilotis, constituting a notable case of block permeability, without commercial use on the ground floor.

As shown in Figure 7, in some cases, the plaza is used as an extension of the building's setbacks, serving as access and place of stay. In others, it integrates into the space under porches and can function as a connection between roads. The regulation can also impose the offer of amenities, such as furniture, landscaping and sculptures.

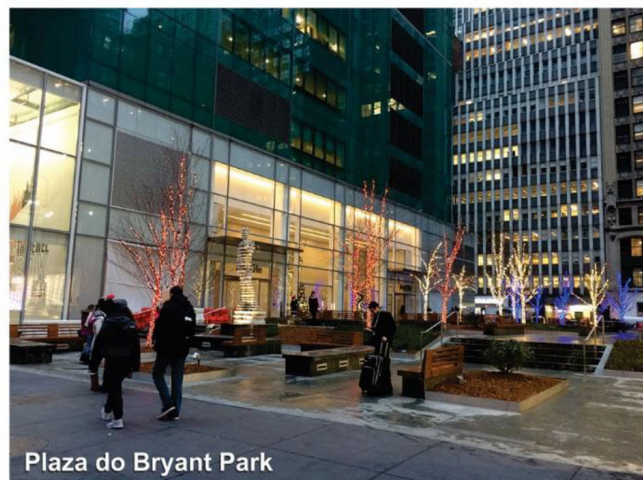


Figure 7 - Examples of plazas in Midtown, New York
Source: José Marques Carriço (2015).

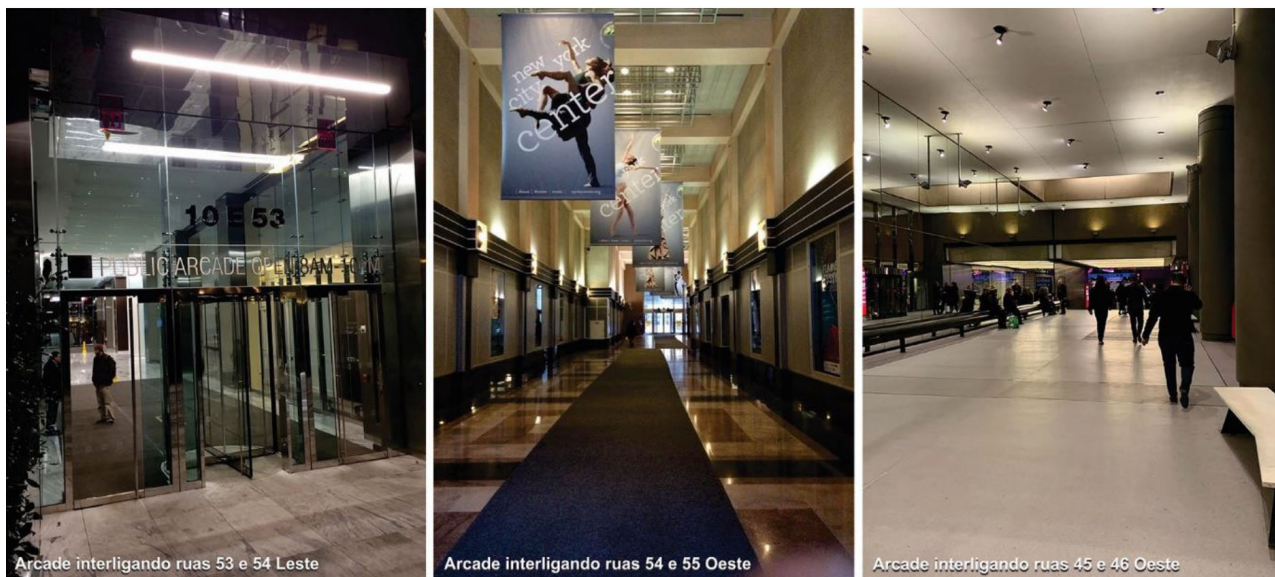


Figure 8 - Arcades connecting streets in Midtown, New York
Source: José Marques Carriço (2015) and Barbara Machado Carriço (2019).

Figure 8 shows examples of *arcades* on the ground floor of buildings, connecting roads, which can be sealed with glass doors and operate during pre-established times. In many cases, the arcade functions as an option for internal access to the building.

The 1961 New York zoning, The 1961 zoning, which underwent subsequent changes, defined POPS as urban amenities intended for public use, made available, built and maintained by the entrepreneur or property owner. As a result of the fact that the intense verticalization process in Manhattan, especially Downtown and Midtown, had generated roads with low incidence of sunlight and small spaces for pedestrians to circulate, as well as few free areas and green areas for coexistence, this regulation encouraged the offer of these areas, in exchange for additional constructive potential to the coefficient of utilization of projects (floor area ratio).

Plazas and *arcades* are planned to be implanted, encouraged or not, on the ground floors of new developments, in certain locations, modulating the incentive according to the location of the project. For example, in the Special Midtown District, art. VIII, Section 81-23, establishes a bonus of 6 square feet

of built area, for each square foot of plaza, implanted in accordance with the regulations, and this bonus cannot exceed the area of the lot. According to the New York City Department of City Planning (NEW YORK, 2014, s.p.), this is a special regulation, “aimed at improving the quality of the urban landscape and promoting a pedestrian experience along the shopping streets in various neighborhoods”.

According to this source, “POPS, especially those in New York City, are the result of the action of renowned urban planners like Jane Jacobs and William Whyte”. The works of Jacobs and, mainly, Whyte were essential to insert the importance of public use areas in the city’s agenda, which seemed natural in Europe, from antiquity to the Industrial Revolution, but seemed to have lost the meaning in large modern cities.

According to Schmidt, Nemeth and Botsford (2011, p. 271.), “what attracts people the most, are other people”, which is fundamental to understand the importance of offering qualified public spaces for the vitality of urban centers. According to these authors, “we allocate space on the streets, disproportionately to vehicles, and it is time to start giving part back to pedestrians”.

As for Whyte's role for New York's POPS, since 1961, the Zoning Resolution has allowed the implementation of different types of POPS, with less demanding provisions and even a ban on some amenities. Whyte was responsible for the development of systematic research, in which 1066 POPS were analyzed, resulting in the elaboration of *The Social Life of Small Urban Spaces* (WHYTE, 1980), which, in 1975, promoted the insertion of requirements to improve the quality of POPS in legislation, aiming at improving design and more comfortable implements for the public. Since then, hundreds of POPS have been built and renovated, mainly *plazas* at the level of the road, with extensions of sidewalks or in open corridors, some juxtaposed to porches, as well as *arcades* in front of blocks, with a similar scheme to European porches or intra-block connections.

According to Table 1 of the Zoning Resolution (NEW YORK, 1961), a requirement for pedestrian circulation area proportional to the built area was established, according to the area of the lot, to ensure an adequate supply of spaces for public use. Thus, the availability of functional and visual amenities started to be required, such as a minimum number of seats, tables, vegetation, kiosks and works of art. As for the interior spaces, these must be easily accessible from the street and provide a place to sit and rest and sometimes to eat. The minimum area of *plazas* is 186.00 m², and must occupy at least 50% of the tested lot without obstructions.

Lot area		Pedestrian circulation area / Built area construída
Square feet	m ²	Pés quadrados
5.000,00 a 20.000,00	464,51 a 1858,06	1,00/350,00
Above 20.000,00	Above 1.858,06	1,00/300,00

Table 1 - Pedestrian circulation area requirement according to the lot area
Source: New York City Zoning Resolution (1961).

In POPS, there is an express prohibition on the implantation of garage entrances, carriage beds, parking spaces, loading and unloading bays, exhaust fans, mechanical equipment and garbage storage

facilities. POPS must be identified by signs, making public use clear, identifying the amenities offered, opening hours and other relevant information.

Various requirements have been standardized, such as dimensions, location restrictions, shape of areas between the lot and the sidewalk, uses allowed in front areas, seats, vegetation/trees, visual communication, implementation of kiosks and cafes, as well as changes in the design of existing POPS. The most important principles that POPS must observe are welcoming and inviting those who pass by the sidewalk, with accessibility, comfort to sit and safety, to avoid blind spots.

According to Kayden (2000), about half of POPS in New York had some kind of violation of the rule, generally regarding the difficulty in identifying public use, when the arcade is implanted next to hotel lobbies or shopping centers, with furniture and other facilities that confuse the pedestrian who wants to access it. In some cases, the furniture did not favor the permanence of people, or there were walls without openings on both sides, creating a feeling of desolation². Kayden's work, carried out for the New York City Department of City Planning, inspired a new revision of the regulations in the 2000s, making the devices for guaranteeing public use of POPS more rigid and improving other aspects.

Although the connections between roads are important in cities with an extremely cold climate, such as New York, given the urban vitality and the generous interface between public and private property, *plazas* are the types of POPS with the best urban quality, especially those juxtaposed to porches for public use (Figure 7), combining wide sidewalks, furniture and lands capping inviting to stay. The New York experience emphasizes the areas of permanence, with the care that the legislation provides for the required amenities.

In some cases, although without the degree of continuity seen in São Paulo, the intra-block passages in New York, when in adjacent blocks, allow longer

² For a comprehensive view of arcade-related problems, see Braun (2013).

sheltered routes, as in 6-1/2th Avenue Arcade, which connects 53 and 55 West streets in Midtown. This strategy is interesting in this area, where the longest sides of the blocks are about 290 m, offering a painful route on very cold days. However, these cases do not constitute a system of passageways, as in the new center in São Paulo, which does not seem to be a concern of New York legislation.

Nevertheless, the New York experience seems to be valid, both quantitatively and qualitatively³, as a strategy for the production of private free areas for public use, in a consolidated and extremely dense urban area. However, this is a very different case from the European one, especially because of the high constructive potential encouraged. Still, it is a paradigmatic program for large cities, in areas with high construction density, where the demand for free spaces for public use has increased, as verticalization has advanced and pedestrian circulation has grown in commercial areas.

CONCLUSION

The use of porches predates antiquity to create transition spaces, between the interior and exterior of buildings, especially in central areas, guaranteeing shelter from the weather. This practice spread in Europe from the Mediterranean civilizations, being transposed to colonial America and later adapted from experiences that are more modern.

In America, the greatest tradition in the use of porches and similar structures is found in countries colonized by Spain. In the cities of Portuguese colonization, during the colonial period, the tradition of porches did not exist as in the Spanish. However, in the city of São Paulo, from the 1930s to the 1960s, galleries were built in the central area, which allowed the permeability of the blocks and enriched the pedestrian routes in an urban way. Their function, primarily commercial and

services, was replaced in the 1970s by the malls. Even with the construction of several buildings with galleries on the ground floor or complexes with galleries such as those spread across the city center, some areas such as Paulista or Faria Lima avenues also have the gallery model as a commercial space and with a leisure function. Despite the “tradition” that was consolidated in São Paulo’s modernism, there are rare examples in which the gallery is an extension of the public space, in a private area, but that favors the permanence and exchange of experiences and encounters, as well as the space public should favor. Most of the examples studied are only transit spaces with an emphasis on the small commerce and do not allow pedestrians to remain. In addition, these commercial passages in block refer to the form of circulation in the medieval city and even the colonial city, or even the *souk* in the Muslim or Arab city. Walking through these spaces in the new center of the city of São Paulo and entering the Copan gallery, for example, which has a slight upward slope for those coming from São Luís Avenue, with its curved windows and stores, brings this to mind. About the gallery, the reality is that of the modernist building with its rational principles, independent structure, free plan, fluidity and flexibility of spaces. As Le Corbusier proposed in the Obus Plan for the capital of Algeria, maintaining the organic circulation of the old *casbah* and the modern rational city or building that neither touches nor interferes with it. In the examples presented, the small commerce with stores within the galleries and the reproduction of big capital by real estate incorporation are dialectically articulated, which is what leverages the city’s production in the capitalist molds. Today, the incorporation of smaller lots to create large coefficients of utilization, unfortunately, does not favor dialogue with the city, or with the continuity of urban spaces, as it privileges the condominium isolated from the public context and emphasizes the private.

In addition to these trends, in the last century there was the development, in the United States, especially in the

³ The POPS inventory is available in New York (2014).

central areas of New York, of an interesting incentive strategy for the implantation of private areas for public use, covered or not, in central areas, where the value of the land discourages expropriation, for the creation of areas for leisure and enjoyment, in neighborhoods with high construction density and sidewalks with high impedance. In this city, thanks to the encouragement of POPS production and the care of urban regulation, the dialogue with the urban is present. It is interesting to note that this strategy appeared spontaneously in buildings constructed before the incentive law.

In the case of São Paulo, public incentives, unlike that of New York, through legislation enacted with an emphasis on the new center, determined the urban design of the galleries. In this area, a structural road intervention motivated real estate production. In addition, contrary to the North American case, there are few proposals that favor the permanence with specific amenities for this purpose. With the exception of Conjunto Metr pole in the new center and Conjunto Nacional on Paulista Avenue, most of the galleries and passageways are intended for commerce and services. Especially the second phase, on Paulista Avenue, and the third phase, on Faria Lima Avenue, do not allow the passage from one street to another, with rare exceptions, as seen in the new center. During this work, no specific legislation was found for the galleries of these phases. In the North American case, the incentive, whose regulation continues to improve until the present, was not responsible for the emergence of the solution, but it was decisive for the dissemination of public spaces in private areas in greater number than in São Paulo and with significant number of permanence areas with excellent urban quality. However, even so, the São Paulo experience seems to be more related to the European one, mainly in the cases of the works of the architects Siffredi and Bardelli, Candia and Gasperini, privileging the zenith lighting, a characteristic pointed out by Geist (1983). Finally, this work seeks to highlight the importance of continuous urban policies for the implementation of private spaces for public use in areas with high tertiary density and high pedestrian circulation.

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