

Urban Acupuncture as a Strategy for São Paulo

Leonardo Shieh

Bachelor of Architecture and Urbanism
University of São Paulo, 2001

Submitted to the Department of Architecture
in partial fulfillment of the requirements for the Degree of
Master of Science in Architecture Studies
at the Massachusetts Institute of Technology
June 2006

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Signature of Author _____
Leonardo Shieh
Department of Architecture
May 25, 2006

Certified by _____
Julian Beinart
Professor of Architecture
Thesis Supervisor

Accepted by _____
Julian Beinart
Professor of Architecture
Chair, Department Committee on Graduate Students

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Leonardo Shieh

Thesis Supervisor
Julian Beinart
Professor of Architecture

Thesis Reader
John de Monchaux
Professor of Architecture and Urban Planning

Thesis Reader
Alexander D'Hooghe
Assistant Professor

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Abstract

This work is the study of one city, São Paulo, and one idea, how small and precise architectural interventions can be catalytic to major urban transformations. The largest urban agglomeration in the southern hemisphere is now approaching twenty-million inhabitants with a major incongruence: while São Paulo sprawls informally onto non-structured lands, the infrastructured downtown has been emptied out. In an attempt to re-attract activity to the historical core, this thesis suggests the insertion of twelve urban projects, small and therefore suitable to the operations of a weak public sector. Designed according to a set of developed criteria, the expectation is that the new urban projects would stimulate the overall rehabilitation of downtown São Paulo.

Thesis Supervisor: Julian Beinart
Title: Professor of Architecture

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Cambridge, MA USA

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São Paulo, SP Brazil

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—

And finally, I would like to dedicate this thesis to the architects who have influenced and supported me the most in my entire life: my parents Shieh Shueh Yau and Irene Hwang Shieh.

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Introduction

Some mischievous spirit has defined America as a country which has moved from barbarism to decadence without enjoying any intermediary phase of civilization. The formula could be more correctly applied to the towns of the New World, which pass from freshness to decay without even simply being old. ¹

The French anthropologist Claude Lévi-Strauss could not have been more incisive than in his opening lines to describe São Paulo, back from an expedition to Brazil in 1935. While premature ageing is an incongruous phenomenon common to many cities,² São Paulo is indeed one of the most emblematic cases of severe degradation. The largest urban agglomeration in the southern hemisphere has grown exponentially to about twenty-million inhabitants,³ which is approximately fifteen times the dimension of that disastrous city observed seventy years ago. It is only fair to say that urban problems have also grown exponentially since then.

Among many problems in São Paulo, a very striking one is the paradoxical process in which, at the same time that the metropolis sprawls onto non-structured peripheral lands, the infrastructured and built downtown is being emptied out. Brazilian urbanists have come to the consensus that a perfect match would be to cope with the peripheral growth by re-occupying, and thus revitalizing the decadent central neighborhoods. For numerous reasons, which will be detailed in the following chapters, such a rational proposition has not been possible yet.

1. Lévi-Strauss, Claude. *Tristes Tropiques*. (New York: Atheneum, 1974), 95.

2. Lévi-Strauss also cited New York and Chicago as cities in the same category.

3. 17,8 million in 2000, according to the Brazilian Institute of Geography and Statistics - IBGE.

This thesis investigates a possible solution to revert this illogical scenario, elaborating on the vague notion of “Urban Acupuncture.” According to the architectural critic Kenneth Frampton, the term coined by urbanist Manuel de Solà-Morales “refers to the reparative potential of compact, catalytic urban interventions, with the proviso that these should be realizable within a fairly short period of time and be capable of spontaneously restructuring their immediate surroundings.”⁴

For many reasons, and the present work attempts to demonstrate these, Urban Acupuncture seems to be an attractive strategy for São Paulo’s operatively weak public sector. By intervening with a well-established set of criteria – within which notions such as precision and perception play a major role – the city could extract the most benefit from minimal efforts and expenditures.

In order to demonstrate how Urban Acupuncture could be applied to São Paulo, the thesis progresses in the following manner:

The first chapter delineates the historical conditions that propitiated the expansion of São Paulo from a small Jesuit mission to the second largest metropolis in the world.⁵ More importantly than recounting a linear history of the city, this chapter attempts to highlight the important facts that led to the emptying process of São Paulo’s central neighborhoods. This historical overview, and the understanding of the city’s problems, are crucial to formulate an appropriate urban design proposition.

Chapter two discusses precedents of Urban Acupuncture by looking critically at case studies that invoke the same idea of small interventions provoking great urban changes. The revitalization process of Barcelona in the 1980s and 1990s seems to be the most

4. Frampton, Kenneth. *Labour, Work and Architecture: Collected Essays on Architecture and Design*. (New York: Phaidon, 2002), 16.

5. United Nations Population Division. *World Urbanization Prospects: The 2001 Revision*, 11.

pertinent example, since many urbanists have written about the small catalytic projects that so successfully set the ground for an overall city transformation. Precedents to Urban Acupuncture are also taken from scattered observations of cities, such as New York's "Broken Windows Theory," that many point out as the main responsible for the dramatic decrease in New York's crime rate in the 1980s, and Providence's "WaterFire," an event that became symbol of the city's rehabilitation. São Paulo itself has a number of recent small interventions that certainly deserve to be analyzed as precedents to this work.

Inspired by the analyzed precedents, and with the understanding of the formation of São Paulo, Chapter three is the conceptualization of Urban Acupuncture as a strategy for the downtown. How could successful projects of other places be adjusted into such a disparate metropolis? Or stir new ideas? This translation, and not mere replication of concepts is an essential process, keeping in mind the dictum of many Brazilian urbanists criticizing "ideas out of place and place out of ideas," correctly skeptical to easy comparisons between Barcelona and São Paulo.⁶ It is evident that the conditions are different, and now, being able to see Barcelona's process from a distance, it becomes important to try to prevent the problems that are currently affecting that case study. In the Spanish city, perhaps the most visible issue is the one of gentrification, or how the rehabilitation of certain areas were so successful commercially that it ended up excluding segments of the previous population. The outcome of this chapter is an overarching concept that will guide the subsequent design proposition.

6. Otilia Arantes and others. *A Cidade do Pensamento Único: Desmanchando Consensos*. (Petrópolis: Vozes, 2000), 121.

Chapter four is the design component of this thesis, the transposition of the theoretical framework into a site. Or rather, sites. I have identified twelve locations for possible interventions,

which are projects that range in scope from the simple maintenance of existing squares to the construction of completely new buildings. I have grouped these interventions into what I expect to become two legible catalytic systems. The design set is to serve as a suggestion, as an illustration of an idea that could replicate itself in other areas.

The conclusion evaluates the pertinence of Urban Acupuncture as a strategy to São Paulo, and analyzes the design procedure found in the development of this work, in the expectation that others could make use of similar thinking to different cities.

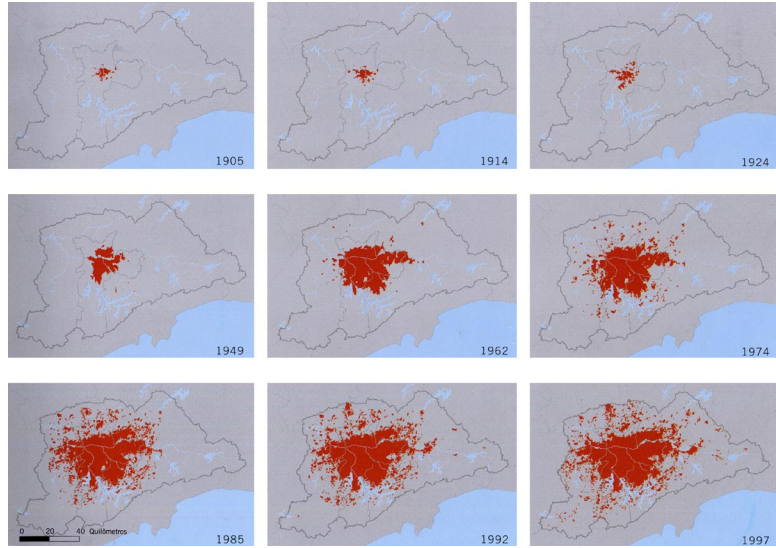


figure 0A |
**Expansion of the Urbanized Area
 São Paulo 1905 - 1997**
 Source: Laboratório de Urbanismo
 da Metrópole - LUME (School of
 Architecture and Urbanism at
 University of São Paulo), 2004.

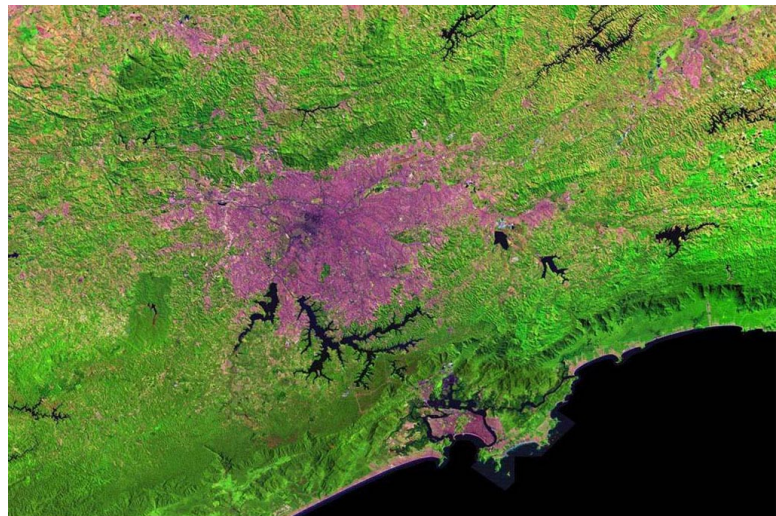


figure 0B |
**Satellite Photo
 São Paulo 2002**
 Source: Empresa Brasileira de
 Pesquisa Agropecuária - EMBRAPA.

01 | Historical Overview of São Paulo

The intention of this historical overview is to provide enough background for the understanding of São Paulo's current problems, and consequently the reasons for Urban Acupuncture as a proposition. Literature on the history of the city is abundant, and the following paragraphs tend to progress quickly while condensing broad research from diverse Brazilian historians and urbanists. For this thesis, the most important subject here is the process of formation of São Paulo – from its genesis to the current conurbation.

1.1 The Origins of São Paulo: 1554-1600 ⁷

Perhaps the most elemental task for the urbanist is to define locations; with the understanding of the site, one should be certain of where life can thrive or fail. When looking for a site inland (São Paulo is about 50 kilometers in distance and about 750 meters in height from the sea) the Portuguese Priest Manuel da Nóbrega meticulously chose a triangular-shaped acropolis between two valleys plentiful with water, vegetation, animals and fertile lands, in order to establish a settlement that could put the Jesuits in touch with the native Indians (figure 1A and 1B). The prominence of the terraced land was strategic, as it guaranteed good visibility but at the same time difficult access for potential enemies. After erecting a very humble construction which served as church, school and living quarters, on January 25, 1554 (Saint Paul's day) the first mass was celebrated, officially founding the settlement of São Paulo.

7. The following sub-chapters follow the division in historical periods suggested in *São Paulo: Vila, Cidade, Metrópole*, one of the most important sources about the city's urbanism written by Nestor Goulart Reis Filho, 2004.

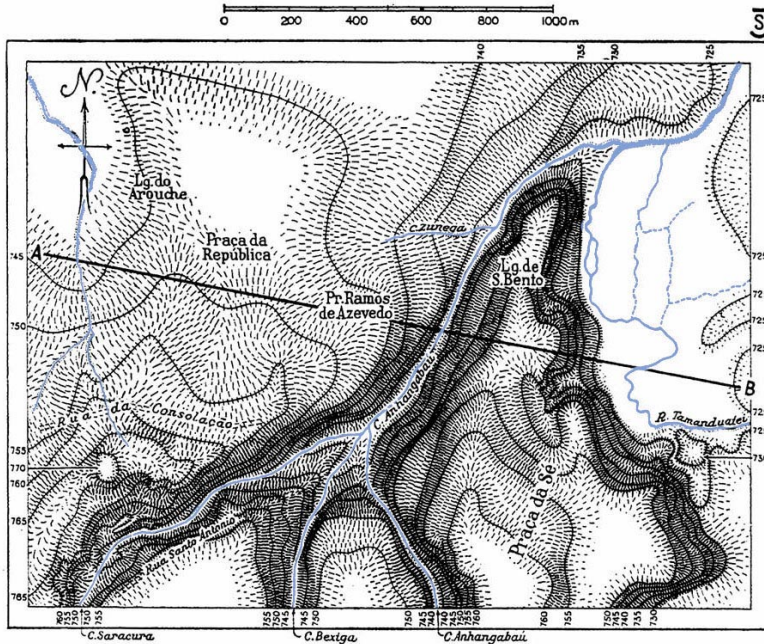


figure 1A | **São Paulo Topographical Plan**
The triangular acropolis chosen by the Jesuit missionaries is visible on the right, between two water streams. Original by Aziz Ab'Saber, color rendering by the author.

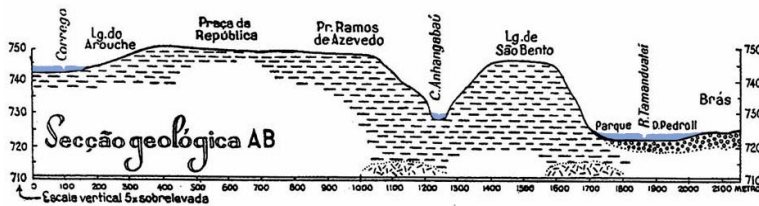


figure 1B | **Topographical Section AB**
With distorted height for visualization. Original by Aziz Ab'Saber, color rendering by the author.

Shortly after, in 1560, São Paulo's settlement was elevated to the status of "village" which then received the representatives of Portugal transferred from the neighboring village of Santo André. By 1570, it is estimated that the settlement had between 200 to 300 people, divided into three groups with diverging interests: the Jesuits were there to catechize native Indians, the government officials to establish domain over unexplored inlands, and the settlers were interested in potential fortunes, slavery and the trading of Indians and their women.⁸

8. Reis, Nestor Goulart. *São Paulo: Vila, Cidade, Metrópole*. (São Paulo: Takano, 2004), 16.

This exploratory notion that the Portuguese government had towards its colonies is a crucial characteristic that distinguishes Brazilian cities from the ones in Hispanic America. According to the seminal work *Raízes do Brasil*, by the historian Sérgio Buarque de Holanda, the Portuguese settlers were solely opportunistic about the new lands, not seeing them as formal extensions of their country. On the other hand, with the *Leyes de las Indias*, the Spanish government “applied insistently in the military, economic and political predominance of the kingdom over the conquered lands, through the creation of large nucleus of stable population, permanent and ordered.”⁹

In São Paulo, this difference of approaches is visible from the first open space implied by the initial constructions. To the Spanish government, every city would begin from the delineation of the main plaza, with pre-established dimensions and proportions. Then, from the center of each side of the plaza, a street would be laid out, in addition to the side ones. The rest of the city would follow orthogonally to these streets. Conversely, São Paulo’s *Pátio do Colégio* (literally school patio) formed by the Jesuits’ rough buildings was amorphous, and the subsequent constructions were scattered around the triangular plateau with no apparent spatial logic.

The lack of geometrical concern is also visible through the limits imposed by protection walls erected soon after São Paulo assumed the official condition of village. The criterion for the location of these walls was solely related to their construction technique – rammed earth that had to stay as far as possible from water runways. For this reason, the walls were generally constructed along ridges, giving the settlement a rudimentary perimeter. The city’s first set of walls surrounded an area of approximately 200-

9. Holanda, Sérgio Buarque de. *Raízes do Brasil*. (Rio de Janeiro: José Olympio, 1936), 60.

250 meters by 300 meters in length (figure 1C), accommodating a population of about 200-300 *paulistas* (only 60-80 of them were officially considered “citizens,” the rest being slaves, mistresses and servants).¹⁰

Located amidst fairly pacific tribes, the settlement was not long confined by the physical imposition of the walls. Although the “urban” nucleus was definitely around *Pátio do Colégio*, rustic constructions began to appear outside the protected area, such as the Santo Antônio eremitic chapel built in 1592, and the *Igreja do Carmo* (Carmelite’s church) in 1594. In fact, it was by cultivating areas outside the walls along the Tamanduateí River, that the population would subsist from for the initial five decades.

In the last decade of the 1500s, the walls were slightly expanded in order to accommodate the growth of population, then estimated in 500-700 people (officially 120-180 citizens).¹¹ This expansion was almost a prediction that something important would happen. In 1600, learning that gold had been found far inlands, Viceroy Dom Francisco de Souza decided to transfer himself from Salvador to São Paulo, with the agenda of organizing expeditions in the search for metals inlands.



figure 1C | **São Paulo’s Sequence of Initial Walls**
from Reis, Nestor. *São Paulo: Vila, Cidade, Metrópole*. (São Paulo: Takano, 2004), 20 and 25.

10. Sant’Anna, Nuto. *São Paulo Histórico*. (São Paulo: Departamento de Cultura da Prefeitura Municipal de São Paulo, 1937), vol. IV, 122.

11. Freitas, Affonso de. *Tradições e Reminiscências Paulistanas*. (São Paulo: Governo do Estado, 1978), vol. I, 183.



figure 1D | **The Plateau with the Initial Settlement**
Photomontage from “Mapa da Imperial Cidade de São Paulo, ca. 1775). Ibid., 19.



figure 1E |
**Igreja Matriz (Main Church)
of São Paulo**
Drawing of the Main Church by
Thomas Ender, 1817. Ibid., 53.

Another visible urban transformation was the construction of São Paulo’s *Igreja Matriz* (Main Church, figure 1E), between 1598-1612, a few meters south from the initial Jesuit convent. The “plaza” created in front of the new church was of natural importance, and in many senses it remains symbolic nowadays, even after many spatial iterations.

1.2 The Mining Period: 1600-1711

With the news that metals had been found in the new continent, São Paulo became a point of departure for incursions to unknown Brazilian lands, through semi-military enterprises called *bandeiras* organized by the viceroy. In addition to the clear objective of finding gold, the government was interested in setting bases inland, and in capturing Indians for slavery. Transactions of slaves, cattle, vegetables, and supplies to the *bandeiras* were somewhat centralized in São Paulo, driving the slow growth of the village.

figure 1F |
The Historical Triangle
Diagram showing the three religious
order corresponding to São Paulo’s
triangular acropolis. Ibid., 23.



It was in this period that some of the most important religious buildings were erected outside the settlement walls. In fact, they were at the “vertices” of the triangular acropolis (figure 1F): the Benedict order was established in 1630 at the northern tip (figure 1G); the Franciscans built their church between 1640-1643 and their adjacent convent was opened in 1647 (figure 1H), at the southwestern vertice. These two monasteries, with the Carmelite’s Church of 1594 at the remaining southeastern vertice (figure 1I) would, for the next 250 years symbolize the territorial limits of urban São Paulo.

In 1693, the *bandeiras* expeditions finally resulted in the discovery

of gold in the Minas Gerais region, about 500 kilometers north inland. Even with the remoteness of the new lands, São Paulo kept a certain political importance given its mercantile characteristics of supplying food, animals and tools to the mining population. Moreover, São Paulo was also one of the possible shipping routes from the distant inland mines to the sea, using the port of Santos (the competing route was through Rio de Janeiro), and by 1700 the village already numbered 210 houses accommodating about 840 people.¹² As a result, in 1711 São Paulo was officially elevated to the category of “city.”

The territorial growth outside the limits of the initial walls was fairly substantial. It was in this period that the first street was officially demarcated in São Paulo. The extension, almost sarcastically named *Rua Direita* (Straight Street), went from the Main Church to the Santo Antônio Chapel. Perpendicular to *Rua Direita* is the *Rua São Bento*, the north-south axis that visually connects the Benedictine monastery to that of the Franciscans. With the *Rua XV de Novembro*, parallel to the Tamanduateí Valley, the city had then officially recognized its form. All the subsequent streets in the acropolis were based on these three sides of the triangle (figure 1J).

1.3 The Shift from Gold Mining to Agriculture: 1711-1882

During the exploration of Minas Gerais, São Paulo itself grew up slowly, if compared to the following economic cycle that began in the mid-1700s. Sensing that the mines were becoming scarce in gold, and that the excess of workforce could create social problems, the Portuguese government supported an economic shift towards agriculture – mainly the planting of sugarcane. Sugar was



figure 1G | **São Bento Church and Monastery**
Benedict Order seen on the right in drawing by Ender, 1817. From Toledo, Benedito. *São Paulo: Três Cidades em um Século* (São Paulo: Cosac Naify, 2004), 43.



figure 1H | **São Francisco Church and Convent**
Anonymous photograph from Rio de Janeiro's National Library. Reis, Nestor. *São Paulo: Vila, Cidade, Metrópole*, 103.



figure 1I | **Carmo Church and Convent**
The Carmelites' Complex, shown in drawing by Debret, 1817. *Ibid.*, 69.

12. Sant'Anna. *São Paulo Histórico*, vol. IV, 122.

figure 1J |
**Plan of the Imperial
City of São Paulo**
Probably the oldest official map of
São Paulo, ca. 1775. Overlay diagram
showing *Rua Direita* (shorter) and *Rua
São Bento* by the author. Ibid., 66.



an expensive and demanded product throughout Europe and in effect, the new plantations made possible the territorial occupation of a large coastal extension of the Americas.

In the highlands of what is now São Paulo State – along Paraíba Valley which connects the cities of Rio de Janeiro and São Paulo – sugarcane plantations succeeded very well, demanding that new roads to the sea were opened in order to ship the product to Europe. With the opening of *Estrada de Lorena* to Santos, São Paulo reinforced its central position as a mercantile city. The nearby village of Sorocaba became the stopping point and marketplace of cattle coming from the southern areas of Brazil. The trail from São Paulo leading west to Sorocaba allowed for the second expansion of agricultural lands, originally occupying the eastern part of São Paulo state. This economic shift from remote gold mining to a more fixed agriculture is of fundamental importance to the city of São Paulo. There were, finally, conditions for the consolidation of an aristocracy around the city.

Another important shift occurs in 1765, with the prohibition of the slavery of Indians. From then on, all the workforce had to be exclusively of African slaves, which made the importance of trading (and the new fortunes) much higher. In 1775, the number of constructions in São Paulo finally occupied the “triangle” implied by the three churches.

By the turn to the 19th century, the consolidation of the exit trails from São Paulo en route to many other villages and agricultural lands made the city extend its occupied territory. In terms of density, it was clear the acropolis was the center, but many new constructions would now appear along the diverse trails exiting the city. In 1822, the year that Brazil became independent from Portugal, São Paulo had an estimated population of about 7,000 people,¹³ a significant growth that demonstrates its consolidation as a noticeable trading city.

1.4 The Brazilian Imperial Period: 1822-1889

The independence from Portugal, and the installment of a Brazilian monarchy did not produce any substantial change to the quotidian life of São Paulo. Perhaps the most important fact is that, without the excessive taxation by the Portuguese government, more money from sugar exportation could stay in Brazilian hands. For our analysis of the evolution of São Paulo, this period is easily characterized by two very distinguished phases: before, and after the opening of the railroad in 1867.

In terms of urban conditions, the first forty years of the Brazilian Imperial system provoked only discreet changes to São Paulo. In fact, from 1840 to 1860, the attention was turned to the rural lands,

13. Freitas. *Tradições e Reminiscências Paulistas*, vol. I, 183.

where sugarcane was gradually replaced by coffee, a product that found better adaptation to the highland soils, and allowed for much better profitability in the European market.

The exportation of coffee beans attracted English investments, which made possible the first railroad in Brazil in 1860, running from the seaport of Santos progressively into the western lands beyond the city of São Paulo. With the opening of *Estação da Luz*, the first train station in São Paulo, the rural aristocracy felt mobile enough to engage the life in the city, and to invest their coffee fortunes in urban properties. By 1867, the city had a population of 26,000 inhabitants. In the following years, the increase was even steeper, reaching 65,000 people in 1890.¹⁴

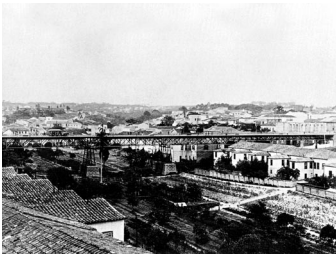


figure 1K |
**Viaduto do Chá and
Anhangabaú Valley**

New bridge overpassing the valley, which then became the central part of the city. Anonymous photograph from São Paulo's Municipal Library. *Ibid.*, 173.

The economic growth brought by coffee, in conjunction with the railway, made the expansion of the city more visible. The already consolidated downtown flourished as a commercial and financial center, and many other areas beyond the initial acropolis were urbanized. Perhaps the most symbolic signal of growth is the construction of the *Viaduto do Chá* in 1892, a bridge connecting the terraced lands above the Anhangabaú Valley, realizing a centennial desire of the city to expand towards the highlands on the west (figure 1K). This pivotal piece inaugurated a new area of expansion, the so called *Centro Novo* (new downtown). Geographically, the new bridge put Anhangabaú Valley – what was once one of São Paulo's natural limits – as the main open realm of the city.

Moreover, the creation of an eminent urban society allowed for an intellectual exchange that culminated with the abolition of slavery in 1888. Many political tensions led to this decision, which was late in Brazil compared to the rest of the Americas. As a

14. Sant'Anna. *São Paulo Histórico*, vol. IV, 122.

result of the discontentment with the conservative monarchy, the military (supported by São Paulo's aristocracy demanding for more participation in the government) assumed command in 1889 proclaiming the Federal Republic of Brazil with Marechal Deodoro da Fonseca as interim president.

1.5 The Urbanization of São Paulo: 1889-1930

In an attempt to negate all the colonial and imperial exploratory past, and to emphasize their backwardness, the progressive Republican government had as its main agenda the consolidation of urban centers throughout Brazil, which were then in terrible sanitary condition. In São Paulo, public investments in the modernization of basic infrastructure – both in the existing and in the new parts of the city – were crucial to attend the extreme growth in population, which went from 65,000 in 1890 to 131,000 in 1893.¹⁵

As a more visible sign of progress, the government and the new urban aristocracy practically adopted the French Beaux-Arts architectural vocabulary, in order to rebuild virtually the entire city of São Paulo. As historian Reis Filho points out, “Brazil's ruling classes saw themselves as representatives of European civilization in the tropics; they were set on absorbing its latest technology and culture and applying them locally.”¹⁶

It also became a norm in the aristocratic neighborhoods to open parks, either commissioning French architects, or finding inspiration in English gardens. It is in this period that the Anhangabaú Valley, assuming the character of the most important open space of downtown, was landscaped by the French designer

15. Sant'Anna. *São Paulo Histórico*, vol. IV, 122.

16 Reis. *São Paulo: Vila, Cidade, Metrópole*, 139.

figure 1L |
Urbanized Anhangabaú Valley
 The valley landscaped by French Architect Joseph Bouvard. Anonymous postcard, ca. 1900. From Toledo, Benedito. *São Paulo: Três Cidades em um Século*, 2.



figure 1M |
Jardim da Luz
 Renovated garden at Luz Station surroundings. Postcard by Guilherme Gaensly, ca. 1910. Ibid., 100.

Joseph Bouvard (figure 1L). The *Jardim da Luz* also gained special attention (figure 1M), with the location of the adjacent train station, consolidating the area as one of the most important new neighborhoods of São Paulo. Many other parks were either constructed or renovated in this fertile period of growth, such as the *Praça da República* in *Centro Novo*, and *Parque Villon* at Paulista Avenue. The importance given to green spaces in urban areas became then visible.

figure 1N |
Municipal Theater
 Municipal Theater, on the new side of the city. Designed by Ramos de Azevedo, inspired by Paris Opera House. From Reis, Goulart. *São Paulo: Vila, Cidade, Metrópole*, 162.



From this period, in addition to the boom of private buildings, we can observe the construction of many governmental, institutional and cultural facilities. They had a tendency to be located along the Anhangabaú Valley, as for example the notorious Municipal Theater (figure 1N) and the Main Postal Office, both architecturally eclectic buildings by the prolific (if not nearly monopolistic) design firm of Ramos de Azevedo. In the old city core, the historical *Igreja Matriz* was being replaced by the Metropolitan Cathedral of Sé, a large neo-gothic structure built from 1913 to 1970.

The light company established itself in São Paulo in 1900 (figure 10), and in the following year electric tramways were implemented in São Paulo's downtown. The boundaries of the city were also transformed by the quick diffusion of automobiles since 1909, and the first bus lines since 1924. As in many other cities, the advent of automobiles allowed for a much faster territorial expansion in a booming city like São Paulo.

During this period, aside from the population growth naturally attracted from rural areas to the City of São Paulo, there was a massive immigration movement, which the Brazilian government heavily promoted in order to replace the abolished slave workforce. Many new immigrants had come from urban centers in Europe, and could not fit in the agrarian living conditions in Brazil. Often times, coffee-barons would have to enforce the stay of the workers in their farms by making them sign agreements and permanent loans (indenture servitude). But many immigrants ended up in the new cities of Brazil.

Some historians estimate that the urban population in São Paulo at that time was composed of 50-70% of Europeans.¹⁷ This abundant mix of different cultures (especially Italian and German) is key to the formation of São Paulo. Political and artistic thinking found fertile ground in this *paulista* society, with the *Semana de Arte Moderna* (Week of Modern Art) of 1922 being the most important icon of cultural expansion of this period.

At the same time, the affluence of new populations to the urban area – immigrants from Europe, and migrants from the rural lands – made possible an incipient industrial sector in São Paulo, in addition to boosting the demand for commercial activities. Symptomatic of this new society are the successes reached by two



figure 10 |
The Light Building
Light and Power building from 1929, with an extension from 1941. New Viaduto do Cha, built in concrete in 1936, wider than the original one. Postcard by Editora Colombo, ca. 1940. From Toledo, Benedito. *São Paulo: Três Cidades em um Século*, 155.

17. Reis. *São Paulo: Vila, Cidade, Metrópole*, 139.



figure 1P |
Martinelli Building

First skyscraper built in São Paulo from 1922-1929. Aerial photograph, ca. 1930. From Reis, Goulart. *São Paulo: Vila, Cidade, Metrópole*, 156.

newcomers to Brazil: Matarazzo – for many decades the largest industrialist in South America, – and Martinelli, who erected the first skyscraper in São Paulo, with 30 stories constructed between 1922 and 1929 (figure 1P).

The variety of social classes were now physically expressed in the city by the distinct character of the new neighborhoods. The upper classes had gone from the first downtown to the new areas of *Campos Elíseos* (named after “Champs Elysées” in Paris) or *Higienópolis* (literally, “hygienic city”). In addition to the *Viaduto do Chá* from 1892, the city could also overcome the Anhangabaú Valley with the *Viaduto Santa Ifigênia* bridge from 1913 that connects the *Largo São Bento* (the square in front of the Benedictine Monastery) to the new neighborhood of *Santa Ifigênia* on the new side of the city.

figure 1Q |
Paulista Avenue

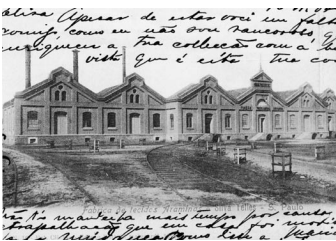
Newly opened avenue at the highest ridge of the city, accommodating coffee-baron mansions. Early 1900s photograph from São Paulo’s Municipal Library collection. Ibid.,



São Paulo also expanded substantially southwards in this period. The Paulista Avenue – along the highest ridge of the city – was opened as an exclusive address for coffee-baron mansion, inspired by Parisian boulevards (figure 1Q). Some areas further south of this avenue were urbanized including English city-garden elements, such as low-density constructions, and curved and landscaped streets.

figure 1R |
First Industries

Typical industrial plants from early-1900s. Postcard from Eliseo Belchior’s collection. Ibid., 143.



In addition to upper class residential neighborhoods, for the first time São Paulo also assigned areas with industrial character (figure 1R), mostly along the railroad (east-west direction) and flatlands. With them, adjacent workers’ neighborhoods were formed. Often, factories would build humble housing blocks, renting the units to their preferred employees. Many other workers would informally occupy older houses in *Centro Velho*, subdividing them as smaller and precarious units, and sharing a limited number of bathrooms

and kitchens – a very common housing alternative known as *cortiço*. Many rich families had simply abandoned their downtown houses, moving to the new and well-served neighborhoods such as *Higienópolis*, instead of waiting for the urban renovation of downtown to reach their houses. The renovation of *Centro Velho*, with the provision of water and sewage systems, and the widening of roads, was indeed slow-paced, occurring from 1898 until 1918.

The demand for workers' housing was so extreme that self-construction of houses in the peripheries is noted as early as 1897 in the neighborhood of *Tatuapé*. These turn-of-the-century new “peripheries,” and the new industrial neighborhoods are, in addition to the historical downtown, essentially the emptied areas of nowadays São Paulo. The urban transformations in the following period will set the basis for this emptying process in the city, so relevant to this study.

1.6 The New Republic: 1930-1960

São Paulo's developing character of an industrial city is consolidated after Wall Street's Crash of 1929, an event that caused the collapse of the coffee market, and consequently of the traditional agrarian structure in Brazil. With the shift to agrarian diversification, and the implementation of substitution industries (in order to attend to the large internal demand affected by discontinuous importation of products between the World Wars), São Paulo had established its tendency to become a metropolis.

Automotive modes of transportation were being rapidly diffused, demonstrated by the early preoccupations of urbanist Prestes Maia in his “Plan of Avenues” of 1924 (figure 1S). The theoretical

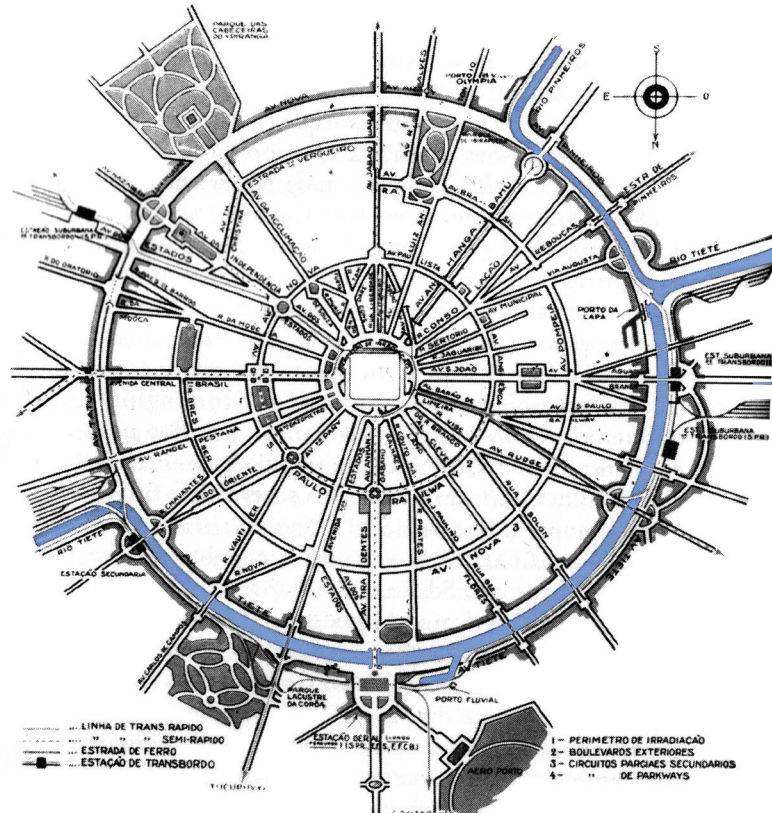


figure 15 |
**Theoretical Diagram
 Plan of Avenues**
 Prestes Maia's roadway plan for São
 Paulo, based on a radio-centric model.
 From Rolnik, Raquel. *São Paulo* (São
 Paulo: Publifolha, 2004), 32.

diagram shows the option for a radio-centric model, with downtown as the converging point of many avenues leading to the peripheries, and with a few ring-roads connecting them at different distances from the center. In the 1930s, some of these avenues began to be opened, especially on the spaces known as “bottom of valleys” that remained naturally unoccupied. This process became the government’s priority in the city, making visible the migration of public investments from smaller and more qualitative features of urban design to the indiscriminate opening of roads leading to new peripheral areas.

The prevalence of investments in roadways was also evident at regional, and later at national scales. The construction of the roadway from the seaport city of Santos to São Paulo, and from São Paulo to the western city of Campinas began in 1939 and was concluded by 1947, giving higher flexibility to the transportation of goods and of people. This focus on roadways detracted further investments from the railway, so utilized during the coffee economic period. The most important Brazilian roadway in commercial terms, the connection between São Paulo and Rio de Janeiro, was opened in the early 1950s, and the opening of the roadway from Rio de Janeiro to Bahia allowed for the migratory movement from northern rural lands that so much characterized urban growth in southern Brazil.

Compared to its earlier rate, São Paulo grew slowly in the period from the world economic crisis of 1929 until the end of São Paulo's Constitutional Revolution in 1932. But its speed of growth was rapidly restored and by 1940, the city already had 1.3 million people. With the end of WWII and with new investments in industrialization, São Paulo by 1950 had a population of 2.2 million and by 1960 3.7 million, finally outpacing Rio de Janeiro.¹⁸

The intense expansion of São Paulo from the mid-1940s onwards is mostly explained by the transference of Brazilian economic uses to heavy industrialization, and by the opening of new roadways connecting major Brazilian cities – a paired process that simultaneously created and attended remote demands for the new production. This policy was intensified in the government of President Juscelino Kubitschek from 1956, whose slogan was to make the country progress “fifty years in five.” With major investments in the production of oil and energy, Kubitschek made possible the implementation of heavy industries throughout the

18. Population numbers from Instituto Brasileiro de Geografia e Estatística. *Sinopse Estatística do Estado de São Paulo*. (Rio de Janeiro: IBGE, 1952).

country. But São Paulo was by then both the most attractive market and the most propitious place for new industries. Under Kubitschek's guidance, nearly the entire automobile production was implemented in São Paulo's region known as ABCD (Santo Andre, São Bernardo, São Caetano, and Diadema). With the opening of many other factories of foreign companies, São Paulo became not only the most important urban center of Brazil, but also a reference worldwide.

This industrialization process occurred at the fringes of São Paulo, more specifically along the new expressways, which were implemented at the valley lines where continuous extensions of flatlands made easier the construction of large factory plants. The need for easy transportation access at a national scale, for plentiful electric energy, and for large sites, made the industries from the early 1900s obsolete. Thereafter, the city observed the emptying process of the central industrial neighborhoods (Barra Funda, Pari, Belém, Moóca) at the adjacencies of downtown São Paulo.

In order to attend all this new industrial growth, it became important to keep the migration flux of non-qualified labor from the rural lands of northern Brazil, a cheap and submissive labor force that adequately suited the work of heavy industries. With this population explosion came a massive need for low-income housing, which clearly the city was not able to attend. This is the turning point in São Paulo's urbanism. With all the social implications of this outrageous growth of a non-educated, underserved and under-remunerated population, it became convenient for politics to adopt a populist character. This political approach oscillated between omission and connivance towards the informality that took place in the peripheries of São Paulo.

The progressive implementation of the radio-centric model suggested by Maia's Plan of Avenues, combined with the primacy of autobuses as main public transportation, allowed for an unorganized territorial expansion that well fitted the scenario of lack of housing. As long as the problems were invisible to the formal city, it became convenient to let low-income workers invade or buy parcels of land from opportunist agents, and to let them self-construct their own "residences." Self-construction and unlimited territorial expansion were key connivances to address the immediate need for housing. This is the beginning of the now generalized problem of *favelas* in São Paulo.

With the physical limits of the city so extrapolated from the previously known territories, downtown was no longer the only commercial area of the city. Since the mid-1950s the upper classes' attention was turned to Paulista Avenue, with the transference of many offices and luxurious commerce from downtown to that region. This process in which the upper class offices and commercial activities move away from stabilized to new areas of development, replicates itself continuously in waves even nowadays.

1.7 Consolidation of the Problems: 1960-2000s

In the early 1960s, downtown São Paulo had no longer the most expensive rent in town, due to the strong movement of offices and banks to the Paulista Avenue area, according to Brazilian urbanist Raquel Rolnik.¹⁹ With the opening of *Conjunto Nacional* in 1957, the first multi-use complex on Paulista Avenue, the upper class had finally an option beyond the consolidated downtown with all its undesirable mixture of classes. This was the period that

19. Rolnik, Raquel. *São Paulo*. (São Paulo: Publifolha, 2002), 45.

Brazilian modern architecture flourished, expressing its vocabulary in the many new towers along the highest ridge of the city, which corresponds to the new avenue.

Paradoxically, while the old center was being left solely for the economically lower classes, one of the most expensive known urban elements was brought to downtown: the intersection of the first two subway lines was implemented exactly at Sé Plaza, the main cathedral plaza.

At a local scale, among the many clear impacts caused by this important transportation change, one could highlight the problem derived from the technocratic approach in design that characterized the subway constructions in the 1970s. For the main station, for example, the designers decided to demolish an entire city block, in order to connect two plazas, Sé Plaza and Bevilacqua Plaza. This was seen as a heroic creation of a large democratic space, in the heart of the city. Within this sloped plaza, sculptures, a cascading reflecting pool, and stepping planters were constructed around a large skylight that directs natural light to the underground station. With all the social implications brought to downtown in the past thirty years, Sé Plaza is now a campsite for the homeless population (figure 1T). This specific plaza, and some other emblematic examples affected by the subway's technocratic design, will be further analyzed in Chapters 3 and 4.

figure 1T |
New Sé Plaza
The design of the expanded plaza encourages the concentration of homeless population. Photograph from 1984 by U. Dettmar, conceded to the author by *Viva o Centro* Association.



At a metropolitan scale, this subway arrangement of lines came to reinforce the centrality of downtown, already suggested with Prestes Maia's "Plan of Avenues" and progressively implemented since the 1930s. In fact, with the historical option to structure the city's transportation based on private automobiles and bus lines, the subway system that began in the 1970s should be seen as a late remediation of an already chaotic situation.

As mentioned in the previous subchapter, the informal growth of the peripheries, with the simple demarcation of an avenue and precarious bus lines, became the default connivance of the government towards the private sector, in order to avoid addressing the extreme demand for low-income housing. Public transportation has been and still is relegated to the lower classes who cannot afford private cars. With the multitude of bus lines arriving downtown from the omni-directional peripheries, gradually traditional streets and plazas in the old city center became bus termini flooding the public space with a daily contingent of low-income workers. The attempts to create formal bus terminals failed to organize commuters' fluxes, since they still have to walk across downtown in order to reach the subway, or to transfer buses from terminal to terminal.

The flux of commuters became so overwhelming that in 1976, Mayor Olavo Setubal decided to close off from vehicular traffic most of the traditional streets in the area of the historical triangle and *Centro Novo* (figure 1U). Given the many bus termini and subway stations downtown, the idea was interpreted by the government as a sign of respect towards human scale, somewhat inspired on the premise of modern urbanism to separate automobile from pedestrian. Indirectly, this approach accomplished another modernist premise: the separation of functions into distinct territories. With the pedestrianized streets, downtown became mostly commercial (and one could add informally squatter housing), clearly an impossible option for the middle or upper classes to reside in, given their dependence on private cars.

Historically, the emigration of the best businesses, paired with mass transportation dominating the public space, were the bases for the

figure 1U |
Pedestrianized Streets
São Bento Street on a typical weekday. Photograph by Caio Mattos, 1995 conceded to the author by *Viva o Centro* Association.



complete decadence of downtown since the 1960s. Downtown as a totality has been transformed into a huge and amorphous transportation transfer station, with all the typical implications of such a structure. Paradoxically, often downtown stores would have the most expensive rent in town (simply justified by the heavy pedestrian traffic), but they would feel no need to invest in interior design, nor in decent maintenance of the historical buildings, simply because of the type of clientele they dealt with – low-income commuters looking for cheap products. Dirtiness is visible through a general lack of interest in keeping buildings and adjacencies in good state.

The already cited *cortiço* mode of irregular occupation was deeply emphasized in downtown and in the first industrial neighborhoods with their old workers' villages. A good example of this degradation process in downtown would be the Martinelli building, the city's first high-rise tower built in the 1920s, becoming lodging for 2,000 squatters by the mid-1970s. From historian Goulart's recounting,²⁰ when the government decided to intervene and renovate the building, 200 trucks of garbage had to be taken away from the old ventilation shafts before any renovation work could begin. This was garbage simply thrown down by the squatters occupying what was once the most glamorous address in the city.

If downtown had just become a territory for the least privileged, and the extreme peripheries were built with that intention, diagrammatically the upper classes were left with a "ring" of a formal city. This area corresponds to what is called the "expanded center" of São Paulo, that is to say, the subsequent portion of the city that was developed after downtown, well-infrastuctured and equipped with more open spaces, transportation system, and all the urban amenities that the old city could not have in such a dense environment.

20. Interview with Historian and Professor Nestor Goulart Reis Filho, at the University of São Paulo, January 2006.

However, even within this well-regulated formal city, a harmful dynamism has also to be observed. The Paulista Avenue region, so successful in the 1960s also suffered from a partial evacuation of offices after the opening of Faria Lima Avenue further south, on which São Paulo’s first shopping mall was constructed in the 1970s. From the late 1980s to the 1990s, some office space was then transferred to the Berrini Avenue, and more recently to *Marginal Pinheiros*. This fast-paced depletive relocation of the most prestigious office spaces (and somewhat consequentially, the upper class residential sector) is referred to as the “southwest vector” of development (figure 1V). It implies exactly the notion of short freshness and subsequent decadence that Levi-Strauss pointed out about São Paulo from the 1930s, and also the replacement of what was once a periphery of low-income housing, with trendy office towers.

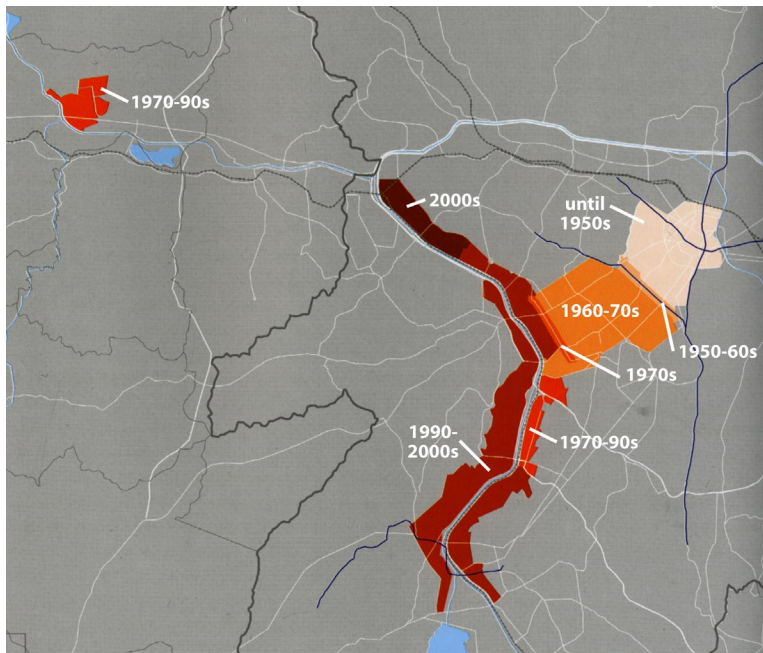


figure 1V |
Southwestern Vector of Development
 Diagram showing the progressive migration of office space from downtown to the southwestern region along *Marginal Pinheiros*. Base map by Laboratório de Urbanismo da Metrópole - LUME (School of Architecture and Urbanism at University of São Paulo), 2004.



figure 1W |
Typical Social Housing Approach
 Social housing at the fringes of São Paulo, with the formation of favelas around. Photograph by Nelson Kon. Regina Meyer and others. *São Paulo Metrópole* (São Paulo: Edusp, 2004), 271.

figure 1X |
Crime Scene in one of São Paulo's Favelas
 Urban violence is a striking problem in São Paulo nowadays, particularly with the historical social exclusion process. Photograph by Lalo de Almeida - Folha Imagem. "25 Motivos para se lamentar." *Revista da Folha*, January 25, 2004, no. 605, 34.



21. See Erminia Maricato and others. *A Cidade do Pensamento Único: Desmanchando Consensos*. (Petrópolis: Vozes, 2000).

22. Rolnik, *São Paulo*, 51.

23. Bucci, Angelo. *São Paulo: Quatro Imagens para Quatro Operações*. (Doctoral Thesis. São Paulo: FAU-USP, 2005), 11.

São Paulo has grown from the inside out, feeding a “machine of social exclusion” as defined by urbanists Carlos Vainer and Ermínia Maricato.²¹ This is historically characterized firstly by the connivance of the government to hide the poor in the peripheries opened at random by opportunist developers (the creation of self-constructed *favelas*), and secondly by facilitating the living conditions of middle and upper classes who tended to be concentrated in a limited area of the city. The remoteness of the lower classes became somewhat institutionalized with the São Paulo’s Metropolitan Housing Company (COHAB-SP) policy from the 1970s of building large scale housing complexes in the extreme edges of the city (figure 1W). Lacking also variation of uses other than housing, and of basic health and education, these complexes became official ghettos, spurring the formation of *favelas* around them. According to Rolnik, there are no doubts that this process of social exclusion became the time-bomb of the generalized violence that affects São Paulo nowadays²² (figure 1X).

Urban violence is a very pertinent issue to this work, and I would like to share here the notoriously sensitive interpretation of hard numbers by the Brazilian architect and urbanist Angelo Bucci. According to him, while in 2000 the metropolitan area of São Paulo had an official population of 17,878,703 inhabitants, it lost 26,085 lives caused directly or indirectly by urban problems. The sub-divided numbers would be: 11,455 from homicides, 3,028 from transit accidents, 719 from suicides, 6,817 children dead before one-year old, and 4,066 born dead²³. Bucci explains that the three last categories are indirectly, but still associated with urban violence of the metropolis – where to him, the lack of basic infrastructure and economic inequality are themselves acts of violence.

Territorial and social exclusion are nowadays pronounced and ubiquitous, with the upper classes not only building fortresses around their condominiums, but also arming themselves with bodyguards and bulletproofed cars. To some rich *paulistas*, the solution to turn the so visible poverty invisible is to be as removed as possible from the reality on streets, by flying with helicopters from their apartment towers to their office towers. São Paulo has the third largest fleet of this type of aircraft in the world, 450 units, only behind New York and Tokyo, and the highest number of helipads, 200, or four times more than New York.²⁴ These are the conditions that the upper classes find themselves in, in order to minimize risks of robbery or kidnapping when caught in the daily traffic jams of São Paulo.

The shift from an industrial to a service-based metropolis came naturally to São Paulo, and with it, a higher dependence on individual transportation modes, instead of the somewhat centralized flux of production from factories to highways for example. Now, production is everywhere and producers of “goods” are more distributed within the metropolitan area. As a result, traffic conditions have been typically as bad as 100 kilometers of daily congestion,²⁵ even with the adoption of the *rodízio* system in 1997, in which 20% of the private cars are not allowed to circulate during peak hours one day of the business week, according to their plate numbers.

The deindustrialization process of São Paulo since the 1980s is not as accentuated as commonly imagined but rather, as Rolnik affirms,²⁶ characterized by a shift of modes of production, with the progressive re-engineering of machineries, and the decentralization from large factories along traditional railway and roadways to multiple small plants spread in the peripheries of São Paulo.

24. Feller, Gordon. “Brazil: Room to Grow”. Online document: http://www.aviationtoday.com/cgi/rw/show_mag.cgi?pub=rw&mon=0103&file=0103latinamerica.htm (accessed February 14, 2006).

25. CET-SP. *Operação Horário de Pico: 8ª Avaliação*. Online document: <http://www.cetsp.com.br/internew/informativo/pico/avalpico.pdf> (accessed February 14, 2006).

26. Rolnik, *São Paulo*, 59.

The massive need for unskilled labor no longer exists, making impossible the absorption of such a large contingent of workers in the new *paulista* economy.

Therefore, between 1980-1991, 760,000 people left São Paulo,²⁷ while the city presented a modest growth of 1.2%, and an even lower 0.4% between 1991-1996. In the last measurement (1996-2000), the city growth spurred back to 1.5%, still a much lower rate than the 1950's 5.4% and the 1960's 4.8%. Although the city proper seemed to be stagnating, there has been a population migration to a few other adjacent municipalities, such as Anhangüera (with 7.7%) and Vila Andrade with 8% of growth.²⁸ At the same time, it is also important to notice that the fastest growing stratum is of low-incomers, reflected in the growth of alternative housing in *favelas*. It is now estimated that two million people reside in these shantytowns, that is to say that 20% of the city of São Paulo lives in absolute minimal conditions.²⁹ The following tables (figure 1Z) attempt to illustrate São Paulo's dynamics of growth.

27. Caldeira, Teresa. *City of Walls: Crime, Segregation, and Citizenship in São Paulo*. (Berkeley: University of California Press, 2000), 233.

28. Population numbers from the Brazilian Institute of Geography and Statistics – IBGE, and São Paulo Municipal Planning Secretariat – SEMPLA.

29. Rolnik. *São Paulo*, 67.

30. 3.6 million with registered employment, versus an universe of 9.3million of potential workers in metropolitan São Paulo. Data from online document: http://www.ibge.gov.br/home/estatistica/indicadores/trabalhoerendimento/pme_nova/pme012006tsp01.shtm (accessed February 14, 2006).

The decadent social condition, visible through the expansion of *favelas* in the peripheries, has worsened according to the economical situation of the country. It is now estimated that only 38% of the workers have a formal job in São Paulo.³⁰ The very elevated level of informalism is perceptible in the number of *camelôs* making their living by selling products on downtown sidewalks, for example (figure 1Y). Recent attempts to remove these informal vendors were polemic, and certain critics called them hygienist practices. The argument in favor of the removal is that the type of products commercialized on the sidewalks nourishes a large system of contraband and piracy clearly against the law. In the specific case of downtown, *camelôs* contribute to

the aspect of congestion, dirtiness, and petty crime associated with this scenario of informality. Nevertheless, the current social and economic conditions seem to make necessary alternative types of employment.

In conclusion, São Paulo suffers of a multitude of urban problems that I could only panoramically convey here. More important than showing the current scenario of chaos, I wanted to demonstrate the formation of São Paulo and its dialectic characteristic of expanding outwards, while depleting the city center.



figure 1Y |
Informal Commerce
Dirtiness is among the many problems caused by the many *camelôs* (street vendors) downtown. Photograph by Caio Mattos, 1995 conceded to the author by *Viva o Centro* Association.

Population (in thousands)

source: IBGE

	1960	1970	1980	1991	1996	2000
Brazil	70,191	93,139	119,003	146,825	157,080	169,799
State of São Paulo	12,824	17,772	25,041	31,589	34,121	37,032
São Paulo Metropolitan Region	4,791	8,140	12,589	15,445	16,583	17,879
São Paulo City	3,783	5,825	8,493	9,646	9,839	10,434

Growth Rate (% per year)

source: IBGE

	1950-60	1960-70	1970-80	1980-91	1991-96	1996-2000
Brazil	3.0	2.9	2.5	1.9	1.4	2.0
State of São Paulo	3.4	3.3	3.5	2.1	1.6	2.1
São Paulo Metropolitan Region	6.1	5.4	4.5	1.9	1.3	1.9
São Paulo City	5.4	4.8	3.7	1.2	0.4	1.5

Growth Rate of Selected Districts 1991-2000 (% per year)

source: IBGE/SEMPA

Central Districts	Barra Funda	-2.29
	Bela Vista	-1.41
	Belém	-2.49
	Bom Retiro	-3.35
	Brás	-3.14
	Cambuci	-2.80
	Consolação	-2.20
	Liberdade	-2.29
	Pari	-3.95
	República	-2.11
Sé	-3.29	
Peripheral Districts	Anhangüera	+13.38
	Cidade Tiradentes	+7.89
	Grajaú	+6.22
	Iguatemi	+6.08
	Parelheiros	+7.07
	Vila Andrade	+6.28

figure 1Z |
Population and Growth
 Source: IBGE / SEMPLA

02 | Precedents of the Concept

As seen in the Introduction of this work, my thesis proposition rests on one simple idea: how certain little things can be catalysts for big transformations. What are these “certain little things,” and how to beneficially cultivate them in urbanism is what I hope to develop in the sequence of this work.

2.1 Where did the idea come from?

The disproportion between little causes and large effects is generally a counter-intuitive notion to most people. Probably the most elaborate attempt in demonstrating how this disproportion often holds truth, is the work by Malcolm Gladwell *The Tipping Point: How Little Things Can Make a Big Difference*, published in 2000. Essentially, the author argues that human behavior frequently follows an epidemic pattern. According to him, there are three notions that order the dissemination of ideas in our society: (1) little things can have big effects, (2) contagiousness, and (3) change happens not gradually but at one dramatic moment.³¹ This dramatic moment would be the “Tipping Point,” – a term coined by the political scientist Morton Grodzins³² – the “magic moment when an idea, trend, or social behavior crosses a threshold, tips and spreads like wildfire.”³³ The book quickly became a reference to diverse areas, exactly because the central idea is both simple and appealing, applicable to many fields.

31. Gladwell, Malcolm. *The Tipping Point: How Little Things Can Make a Big Difference*. (New York: Back Bay, 2002), 9.

32. The phrase was coined by Morton Grodzins, who studied integrating neighborhoods in the early 1960s. He discovered that most of the white families would remain in the neighborhood so long as the comparative number of black families remained very small. But, at a certain point, when “one too many” black families arrived, the remaining white families would move out en masse in a process known as white flight. He called that moment the “tipping point.” The idea was expanded and built upon by Nobel Prize-winner Thomas Schelling in 1972. A similar idea underlies Mark Granovetter's threshold model of collective behavior. (definition from en.wikipedia.org/wiki/Tipping_point, accessed February 26, 2006).

33. Gladwell. *The Tipping Point: How Little Things Can Make a Big Difference*, backcover.

An example that Gladwell utilizes in his argumentation is the “Broken Windows Theory” developed by the criminologist George Kelling and successfully applied in New York City. In order to cope with the extraordinarily high rates of violence in the city, the New York Police Department concentrated its efforts in penalizing small infractions such as urinating on the sidewalk, or jumping turnstiles in the subway. The subway system itself became one of the emblems of this approach. David Gunn, New York’s subway director in the mid-1980s, picked on an overseen little problem – graffiti on the trains – when many were worried about larger issues such as the reliability of the system. In those days, New York’s subway was in a lamentable state of conservation, both in the stations and along the tracks. Fare-beating was common and affected revenues, which consequently affected expenditures in maintenance. In sum, the problems had snowballed.

By initially tackling the perception of the environment – by daily cleaning vandalized cars – in a short time the subway system was able to regain aspects of normality. This was coordinated with the police action of arresting fare-beaters, and of displaying them handcuffed until they were numerous enough to take them to the police station. For Gladwell, cleaning graffiti was the little thing that tipped the entire rehabilitation of New York’s subway.

“Broken Windows” is an important theory for us because, as much as it takes on policy, it also concerns the perception of the surrounding environment, and therefore is something that can be stimulated through urban design. I will argue further in this work that having clean and active buildings in strategic locations would be a way to minimize urban violence in São Paulo. But more than just quoting the “Broken Windows Theory,” Gladwell is able to find similar examples in the most diverse areas – from the way a

fad begins to the reasoning behind unusual high suicide rates – in order to demonstrate that it only takes a few little things to provoke major changes in human behavior.

The seminal suggestion that Gladwell leaves open-ended in his work is that, what if these “little things,” these stimuli, could be identified and deliberately adjusted in order to achieve beneficial results? This is exactly the basis of the urban strategy that I investigate here for São Paulo.

In urbanism, an example of a more systematic approach to this idea was the rehabilitation plan used in Barcelona in the 1980s. When Oriol Bohigas took charge of the city’s planning office in 1981, his main decision was to diminish the importance of the General Masterplan for Barcelona from 1976, and to establish, as the operative dimension for his department, small projects throughout the city – mostly projects of open spaces. And it is no mystery to us nowadays, that this choice for simple local projects was the catalyst for a successful larger set of urban transformation in Barcelona, culminating in the selection of the city for the 1992 Olympic Games. Writing on Barcelona’s revitalization, Nuria Benach summarizes the strategy:

“[according to Bohigas] this urban intervention was ‘metastatic, strategic, for reconstruction, and mainly supported by the design of public spaces, since they are most immediately effective to achieve these goals’. They are metastatic because ‘a series of actions can be the focus of regeneration for the surroundings;’ strategic, since ‘in order that metastasis can be effective, the initial ‘infection’ has to be applied to the nerve center of the neighborhood, of the city, of the metropolis,’ and for reconstruction, because ‘to build in what is already built, to improve what already

exists, to transform, to modify, to rehabilitate, to re-signify, to underline or to create identities are the clearest and most important objectives.”³⁴

With this, there is the suggestion that in order to be catalytic of urban renovation, the interventions need to be precisely located. Later in this chapter I will further analyze the general character of these projects in Barcelona and elsewhere.

What is important to have in mind now, is the metropolitan dimension that succeeded and complemented these initial small interventions. According to Juan Busquets, Barcelona received three groups of interventions, in order of scale and time of implementation: urban rehabilitation, urban restructure, and morphological key structures. Urban rehabilitation was quickly achieved by approximately 200 new or renovated plazas, and by tackling urban problems examined at neighborhood scale. At medium term, urban restructure was possible through re-organization of road system, and the creation of new neighborhood centers. Within a longer timeframe, the city was able to realize larger morphological projects such as the opening to the waterfront.³⁵ Nevertheless, what I find most appealing is the idea that a large urban transformation, in this case metropolitan Barcelona, has been triggered by little but precise interventions. Peter Buchanan, who initially wrote about Barcelona for *The Architectural Review* in 1984 (in the beginning of the process), had in 1992 (when the city was substantially renovated for the Olympics) the chance to comment on the results of this catalytic strategy:

34. Benach, Nuria. “Public Spaces in Barcelona 1980-2000,” In *Transforming Barcelona: the Renewal of a European Metropolis*, ed. Tim Marshall. (London: Routledge, 2004), 155.

35. Busquets, Joan. Barcelona. *Barcelona: Evolución Urbanística de una Capital Compacta*. (Madrid: MAPFRE, 1992), chapter IX.

“Starting with relatively cheap yet conspicuous projects, such as plazas and parks, rather than equally urgent but expensive and concealed ones, such as drainage, he was able to seize not just local attention but also the international acclaim that helped fuel local enthusiasm. This shrewdly opportunistic strategy was then progressively escalated to include holding the international architectural competition to build the Olympic Games facilities in Montjuïc. The attention and investment these brought allowed ever more ambitious schemes to be undertaken as well as the fitting together of the individual projects into coherent urban form. Now even vast schemes, like the Cinturón (an orbital motorway originally proposed in 1905) that serves at the city-wide and regional scale, have been realized in time for the Olympic Games.”³⁶

I do not want to extend too much here on the study of Barcelona as a precedent, since literature on its rehabilitation process is vast. But I do want to make a few remarks about the outcome of this process, now that we are able to learn from the distance of about fifteen years since the Olympic Games. Barcelona has ever since been criticized by many, for becoming too much of an urban model serving the interests of the dominant economic interests. In the Spanish city, for example, the gentrification of many central areas is visible as a result of the aggressive real estate speculation from private companies, and the concurrent marketing of the city as a vibrant “global city” for business and tourism. The success of reconditioning the city for the Olympics has also become one of economic order. Moreover, authors like Mari Paz Balibrea suggest that the Barcelona model makes intensive use of the “city as an ideological text” which creates – through beautification of the urban space – a dangerous consensus among the city’s inhabitants, tourists and admirers:

36. Buchanan, Peter. “Barcelona: a City Regenerated.” *The Architectural Review*, August 1992, no. 1146, 12.

“One could say, provocatively drawing on Walter Benjamin’s famous dictum, that the more aesthetics is politically used in Barcelona, the more politics is itself aestheticized so that political consensus and the obedience of the masses are achieved by continually producing for them what is perceived as aesthetic or artistic gratification. It is clear, then, that a city is an ideological text.”³⁷

There is then, a fine line of ethics that encase the work of urban designers. Therefore it is important to prevent or minimize gentrification, mostly by controlling private speculation. And this may sound as an extra challenge in São Paulo, given the city’s historical duet of private speculation and government consent.

Furthermore, Balibrea recounts the second set of projects that helped to shape the character of nowadays Barcelona. The restructuring of open spaces, in many occasions, gave room to the renovation of existing museums and other cultural facilities. In fact, not only old institutions had the chance to be renovated or expanded, but many new cultural buildings became feasible, given the city’s self-confidence and optimism leveraged by the initial projects. However, what Balibrea and other critics call attention to, is that “the most important changes affecting the social body and the economy have been justified in name of culture, which become their structural axis.” It is true that Barcelona did not claim inappropriately the character of a cultural city, given all its heritage in arts and architecture. What is striking though, and especially with the addition of the city of Bilbao and its Guggenheim Museum to the scene, is that the “cultural approach” has become an easy and widespread solution – though incomplete – to many cities in the world. São Paulo is an example by recently trying to associate downtown with the imagery of an area rich of cultural

37. Balibrea, Mari Paz. “Urbanism, Culture and the Post-Industrial City: Challenging the ‘Barcelona Model,’” In *Transforming Barcelona: the Renewal of a European Metropolis*, ed. Tim Marshall. (London: Routledge, 2004), 211.

facilities. I will develop my criticism about São Paulo in Chapter 3. Herewith, I have to clarify that I do not think that the “Barcelona Model” is at any rate a failure or a counterfeit, but that it contains lessons that we have to observe.

Somewhat inspired by Barcelona and the notion that little things can cause great changes, many other cities have been able to positively transform themselves. A good example is the City of Bogotá (capital of Colombia) which in three years under the term of Mayor Enrique Peñalosa, was able to reorganize itself – mostly through projects that dealt with accessibility in the public realm. To a city so dependent on automobiles, Peñalosa recounts that he was nearly impeached as mayor for making little actions such as reclaiming the sidewalks from illegally parked cars, apparently a common practice among the upper classes in Bogotá. But after implementing an extensive modern bus system (inspired by the one developed in Curitiba by Jaime Lerner), Peñalosa made more dramatic changes against the usage of private cars:

“We began to experiment by instituting a car-free day on a weekday. In a city of about seven million people, just about everybody managed to get to work by walking, bicycling, bus, even on horseback—and everybody was better off. There was less air pollution, less time sitting in traffic, more time for people to be productive and enjoy themselves. Every Sunday we close 120 kilometers of roads to motor vehicles for seven hours. A million and a half people of all ages and incomes come out to ride bicycles, jog, and simply gather with others in community.”³⁸

38. Enrique Peñalosa and Susan Ives. “The Politics of Happiness”. *Yes! Magazine*, Summer 2003, <http://yesmagazine.org/article.asp?id=615> (accessed March 27, 2006).

With this new conscience, the reconditioning of the public space became the priority of his administration. Sidewalks were widened, or in many cases built where there were none. The city

also received the implementation of 300km of bike paths, the planting of 100,000 trees, and the renovation or construction of 1,200 plazas and parks. With fairly simple projects, Peñalosa was able to tackle the problems of a metropolis tormented by excessive vehicular traffic, lack of public space, and urban violence. According to the mayor, “people thought it was a punishment of God to live in Bogotá. They hated the city” but “in three years, the citizens’ image of the city and their relation to it has changed dramatically. People have begun to care for the city. They have pride and a sense of belonging.”³⁹

If we were to extend this analysis of precedents, we could probably find diverse examples of cities that somehow utilized similar strategies of systematically pinpointing the territory with small projects of open spaces, institutional buildings, or other emblematic interventions. In the 1980s, Paris, with *Les Grands Projets* by President Mitterrand, commissioned respected architects to design several cultural facilities and parks. More recently, Chicago, with a series of little actions in favor of urban greenery, culminated in the creation of a major venue in downtown: the Millennium Park. The success of this park is enhanced as civic space by the design of architecture, landscape and sculptures that engage the general public by offering culture and leisure activities.

In sum, the idea of employing little actions and small projects – in the expectation that together they can create a sense of holistic change – is not a new strategy in urbanism. My contribution for São Paulo is the proposition of using this idea in a systematic way, and moreover, of developing a set of criteria for interventions with a higher catalytic effect.

39. Gewertz, Ken. “In Bogotá, don't park on the sidewalk: Making the city people-friendly”, *Harvard Gazette*, April 17, 2003, <http://www.news.harvard.edu/gazette/2003/04.17/09-urbandesign.html> (accessed March 27, 2006).

2.2 What are the main tools for this idea in urbanism?

I contend that Urban Acupuncture should be implemented with two concomitant types of tools: the virtual tools – consisting of policies, and the physical tools – consisting of Urban Projects.

As a designer, I will tend to concentrate on the second category, although I believe that both are equally important, and intrinsically connected. Moreover, I think that physical interventions can only be successful if supported by policies.

Although I will not elaborate much on the virtual tools, I would like here to acknowledge their importance to Urban Acupuncture. John de Monchaux et al, suggest that there are only five things (each carrying a different message) that governments can do to implement any type of urban design policy, including the preservation of the built heritage – which was then the focus of their work. The described tools are “ordered from the heaviest to the lightest government intervention, but also, interestingly, from the most familiar to the least familiar:

- *Ownership and Operation.* The state might choose to implement policy through direct provision, in this case by owning and operating heritage resources. ‘The state will do X.’
- *Regulation.* Alternatively, the state might choose to regulate the actions of other actors, particularly those private individuals or institutional entities that own and occupy heritage resources. ‘You must (or must not) do X.’
- *Incentives (and disincentives).* The state might provide incentives or disincentives designed to bring the actions of other actors with respect to heritage resources into line with a desired policy. ‘If you do X, the state will do Y.’

- *Establishment, allocation, and enforcement of property rights.* The state can establish, allocate, and enforce the property rights of individual parties as these affect the preservation and use of heritage resources. ‘You have a right to do X, and the state will enforce that right’
- *Information.* Finally, the state can collect and distribute information intended to influence the actions of others who might be engaged in the preservation or use of the built heritage. ‘You should do X,’ or ‘You need to know Y in order to do X.’⁴⁰

According to the authors, rarely is one tool used by itself. Rather, conditions such as politics, economics, engagement of the society at large, size and timing of the projects, would inform the mix of the suggested tools. In my proposition for São Paulo in the next chapter, I will further exemplify how some of these policies could be applied as integral parts of downtown’s rehabilitation process.

However, as a designer, I am most interested in the physical tools of Urban Acupuncture. As Bohigas implied, in order to be effectively catalysts, the new projects had to be precisely located amidst an often convoluted context, and precisely designed to solve a multitude of problems and to emanate renovation. This notion of precision in design may sound somewhat mystical, therefore one of the main tasks here presented is to elaborate on the topic. In fact, a desire in this thesis is to build upon the thinking of the urbanist Manuel de Solà-Morales (one of those responsible for Barcelona’s rehabilitation), who coined the term “Urban Acupuncture” as a strategy, and identifies the design of “Urban Projects” as its central tool:

40. Schuster J. Mark and others. *Preserving the Built Heritage: Tools for Implementation.* (Hanover: Salzburg Seminar, 1997), 4-6.

“Fortunately the best city planners of today are neither the heirs of the Athens Charter nor the architects who inveighed against it. To a large extent today, the urban project displays a taste for the city as rich and varied geography along with a love for its parts, feelings which have survived all the ruptures since the beginning of the century. It also retains, in rejuvenated form, themes and materials, methods and instruments. The attention devoted to the layout of roads as means of formalization, the proposal of new building fabrics, and the reinterpretation of urban spaces are perhaps three of the great themes that, with innovative approaches and solutions, are shared by the more interesting urban projects. There are five points we could take to define them as urban projects:

1. territorial effects outside their area of intervention;
2. complex and interdependent character of the contents; superseding of mono-functionality (park, road, typology, etc); mixture of uses, users, temporal rates, and visual orientations;
3. intermediate scale, to be completed within a limited time scale of a few years;
4. voluntary assumed commitment to adopt an urban architecture, independently of the architecture of the buildings;
5. a significant public component in investments and in collective uses of the program.”⁴¹

All of the above points with perhaps the exception of number 5, tend to go against the tenets of modernist urbanism transmitted from the 1930s CIAM meetings. Solà-Morales in his seminal article first published in *Urbanismo Revista* in 1987, identifies a certain lineage of urban designers who were influenced by many aspects of modernism in architecture but were, in general, skeptical about the functional planning defended by Corbusier, Giedion

41. Solà-Morales, Manuel de. “The Urban Project,” In *Lotus Quaderni Documents*, 1999, no. 23, 72. First published as “La Segunda Historia del Proyecto Urbano,” In *Urbanismo Revista (UR)*, November 1987, no. 5, 25.

and Gropius. According to Solà-Morales, “the urban project, as an intermediate field of work in which the scales were interwoven and where the architect acquired a reasonable authority over the form of the city, precisely because it made use of architectural building, was discredited by the official avant-garde and erased from the vocabulary of propaganda. Yet it was able to develop in the successful work of many independent planners of European and North American cities.” He goes on, mentioning Cornelis van Eesteren, Ludovico Quaroni, and Leslie Martin as some of the masters that influenced him and a legion of contemporary urban designers, especially in Europe.

I will not discuss the lineage of these designers, but rather look a little closer at the general characteristics of the designs that leveraged Barcelona since the mid-1980s, some of them by Solà-Morales himself. Also, at the works published in the seminal issues 5 and 6 of *Urbanismo Revista (UR)*, intentionally selected by Solà-Morales as good examples of urban projects.

In regards to the design of open spaces in Barcelona, Miquel Martí from the Universitat Politècnica de Catalunya argues that there has been an evolution in their quality, especially in the way the projects relate to their surroundings. He identifies the shift from the “over-designed, introverted, and often fragmented spaces exploring a wide range of formal languages”⁴² from the early 1980s, to the more recent ones that in general tend to be “minimalists.” According to Martí, the majority of the new projects have three interdependent characteristics: they offer more transparency (which transfer the focus of attention to the built environment, instead of the plaza itself), they are expressive but with limited and subtle composition of elements (with standardized elements that are carefully conditioned to the surroundings), and they are extendable

42. Martí, Miquel. “In the Search of Contemporary Civitas. The Public Space Renewal in Barcelona (1979-2003): From Monumental Objects of Design to a Design Language for Civic Places.” In *After the City: a Genealogy of Urban Concepts*. International PhD Seminar (Barcelona: UPC, 2005), 5.

(in the sense that they relate to a larger system throughout the city).⁴³

The Urban Projects published in *UR*, have characteristics somewhat similar to the ones just described, however with a more complicated context – nearly every published project had to address difficult conditions of fluxes (road or railway). The size range is wide, going from the remodeling of entire neighborhoods such as Álvaro Siza's project for Naples in 1987, to the proposition of small complexes with a few buildings such as the renovation of the Salzburg Station Plaza by Solà-Morales himself. Therefore it is difficult to say that there is a consistency in terms of scale of actuation (beyond the fact that they are relatively small when compared to intangible masterplans). Nevertheless, the strongest similarity among these projects is their preoccupation with the context of insertion on each new construction, and of course, the fact that they actually employ constructions in order to delimitate open space. What I mean by this is that, although there is a certain variation in the size of the projects, architecture for them is always the instrument of urban design. There is always a commitment to make good architecture by responding to the context, and conversely, to make a good context by organizing it through architecture.

Furthermore, these projects show a strong preference for composing urban frames through multiple buildings, each being able to perform a certain role in the context. For example, in Juan Navarro Baldeweg's project for the city of Turin along River Dora, the proposed new constructions are not concentrated in one place of the site but rather, scattered around as a conscious way of dominating the territory (figures 2C and 2D). And for each site condition, a different building typology is employed: a singular tower acknowledging the bend of the river, and long and low

43. *Ibid*, 8-9.

buildings with arcades on each extreme of the linear site framing a sequence of towers similar to each other. Sequencing of typology is a recurrent wise strategy among these projects, and again it serves to signal domain over a stretch without really building much. This can also be seen in the work of Vazquez Consuegra and de la Peña for Naples, where a sequence of four towers delimit the edge of the intervention (figures 2E and 2F). Furthermore, these towers signal the climax of the urban project, which also takes charge of the roadway axis as a construct of architecture.

Exploration of architectural typologies is another frequent resource of contemporary urban designers. There is in them the bravery to respond to multiple urban problems, such as chaotic vehicular traffic, through architecture. This seems to be the case in many of these Urban Projects; Solà-Morales himself has a few important projects in Barcelona and elsewhere that play with this idea. *Moll de la Fusta* for example, is an urban project that takes the task of reorganizing the traffic flow of automobiles, but more importantly, of pedestrians from the city trying to reach the waterfront (figures 2A and 2B). The inhabitants of the area known as *Passeig de Colón* have had no access to the adjacent harbor for decades, due to a major arterial way running parallel to the waterfront. The solution is a “magical urban piece” that is nothing like a building, nothing like a road, nothing like a plaza – it is simply a new typology. Interestingly enough, it is a new typology that finds similarity in another authentic Catalan pre-modernist project, the *Parc Güell* by Gaudí. *Moll de la Fusta* is essentially a terraced plaza that mediates the connection between the city fabric and the waterfront. Underneath the plaza there is still, or better yet, a renovated arterial road. On top is a linear civic space landscaped with trees, lighting, railing, and other equipment that reference to the human scale in a way that one forgets the major vehicular traffic happening below.

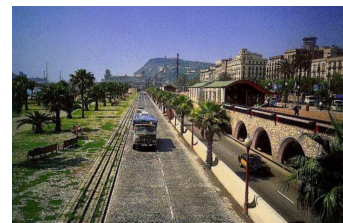
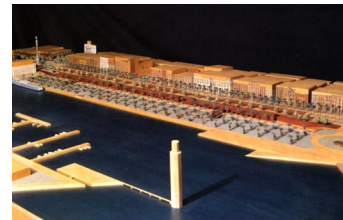


figure 2A |
Moll de la Fusta, Barcelona
Manuel de Solà-Morales
 Model of the new “magic urban piece” that reorganizes vehicular and pedestrian traffics. Ibid,91.

figure 2B |
Moll de la Fusta, Barcelona
Manuel de Solà-Morales
 Photo from one of the pedestrian bridges leading to the waterfront. From odin.let.rug.nl/~kastud/barca/r/b_solo1b.jpg (accessed March 28, 2006).

figure 2C |
Urban Project for Turin
Juan Navarro Baldeweg
 Baldeweg pinpoints the landscape
 with different interventions, each
 responding to a certain context.
 From *Urbanismo Revista (UR)*, 1988,
 no. 6, 54.

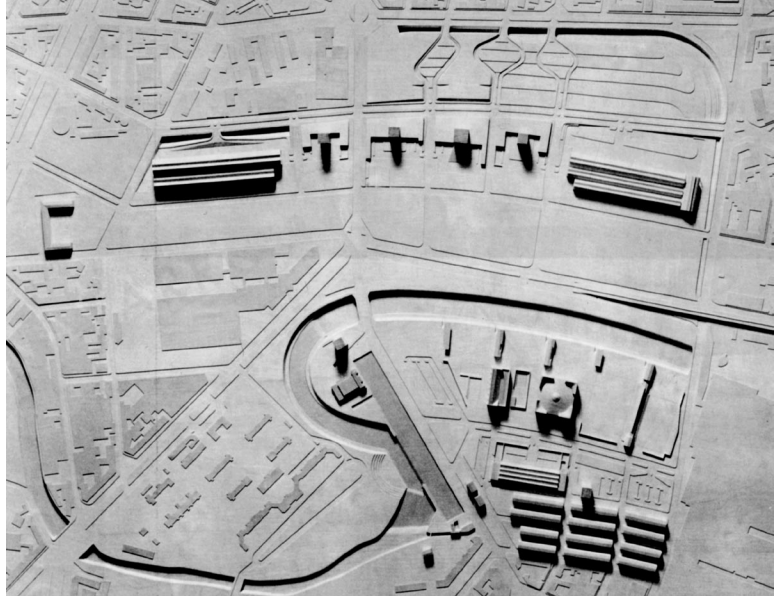


figure 2D |
Urban Project for Turin
Juan Navarro Baldeweg
 The exploration of different
 typologies is a recurrent theme in
 Urban Projects. Ibid, 53.

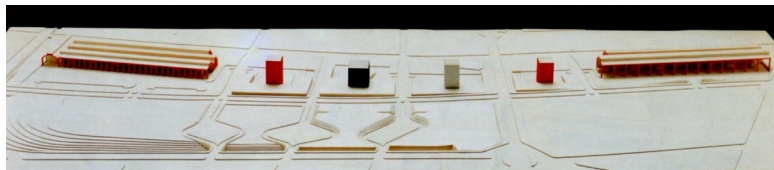


figure 2E |
Urban Project for Naples
Vazquez Consuegra and de la Peña
 Repetition of buildings is a strategy
 that reinforces domain over large
 territories. Ibid, 49.

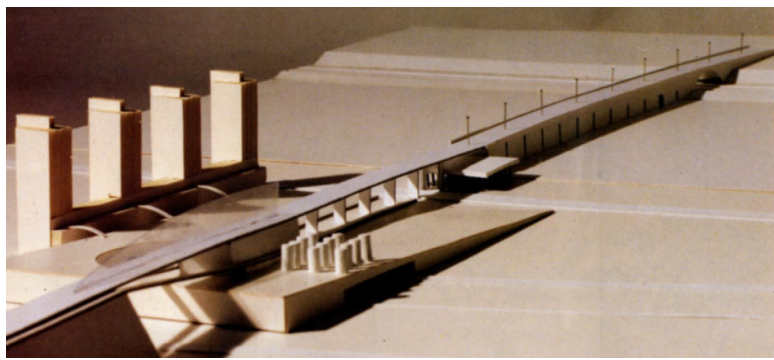
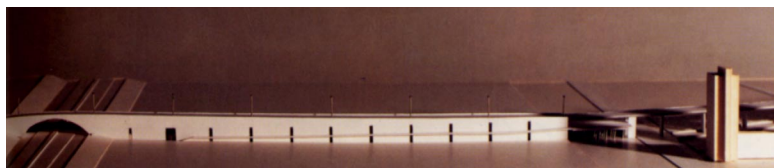


figure 2F |
Urban Project for Naples
Vazquez Consuegra and de la Peña
 Exploration of the roadway as
 architectural constructs is another
 typical characteristic among Urban
 Projects. Ibid, 51.



From this elevated plaza, one can have privileged views of the harbor and find his/her way down to the sea level by utilizing the new pedestrian bridges.

The same strategy of a magical urban piece can be found in other smaller projects by Solà-Morales. For example, in the competition for the Salzburg Station Plaza, the magic is done by the addition of a few new buildings to the amorphous open space (figure 2G). Among these proposed buildings, one calls special attention for being an L-shape building jetting out perpendicular to the existing station. This simple and plain architecture is the magical piece for this context. It solves the meaningless aspect of the area by piecing the open space into digestible formalized urban squares. The oblique free-standing tower plays a similar role, serving as an anchor to the entire composition.

It was by conceptualizing a project for Antwerp that Solà-Morales coined the term “Urban Acupuncture” now used worldwide, often with a vague meaning (figure 2H). As the architect defines it, the strategy for renovating the city’s old port “could be described as a sort of Urban Acupuncture: interventions at crucial points provoking comprehensive reactions that improve the whole organism. The general view consists in understanding the system and the actual effects of each intervention, without having to resort to major surgery or constant treatment.” As in Salzburg, the architect did not have to resort to any fancy typology, but plain architecture as “a series of precise interventions (facilities, offices, residential structures) that are designed to stimulate a new economic and social vitality, as well as to renew the existing ones (warehouses, housing, workshops, administrative offices).” According to him, the insertion of these precise interventions is “not too difficult a task, but one that nevertheless requires ample reflection on the whole of the territory.”⁴⁴

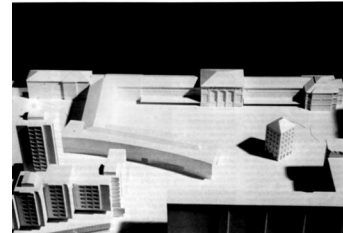


figure 2G |
Salzburg Station Plaza
Manuel de Solà-Morales
The proposition is to formalize the plaza through the new L-shaped building and the oblique tower. From *Urbanismo Revista (UR)*, 1988, no. 6, 58.

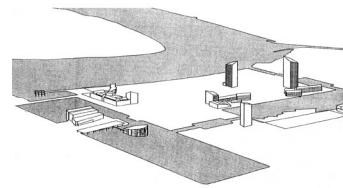


figure 2H |
Urban Project for Antwerp
Manuel de Solà-Morales
Interventions at crucial points as per Sola-Morales. From Zadirni, Mirko (ed.). “Antwerpen,” In *Lotus Quaderni Documents*, 1999, no. 23, 82.

44. Solà-Morales, Manuel de. “The Urban Project,” In *Lotus Quaderni Documents*, 1999, no. 23, 82.



figure 2J |

L'Illa Diagonal, Barcelona
Manuel de Solà-Morales and Rafael
Moneo

Single complex performing the role of spatial organizer along new boulevard. From <http://www.lilla.com/introflash.htm> (accessed March 28, 2006).

Perhaps the most visible “magical piece” by Solà-Morales is the project L'Illa Diagonal built in Barcelona in 1993, with Rafael Moneo (figure 2J). The two-million square foot complex includes retail, office, educational, and cultural spaces. Just to give a sense of scale, the façade along the diagonal boulevard has more than 300 meters in length, and the complex accommodates 2,400 parking spaces underground. This is a major project, but nevertheless a singular piece of urban design as Frampton elaborates:

“With the L'Illa block, we encounter the concept of the catalytic city in a more active sense, to the extent that it is inseparable from de Solà Morales's strategy of “urban acupuncture”. Under this rubric, the critical designer brings to the spontaneous aggregation of contemporary urban form the possibility of intervening at a single meridian point in such a way as to release tensions and to engender new energy flows within the situation, not only in terms of the specific site but also with regard to future developments emanating from that site in ways which cannot be foreseen.”⁴⁵

In all these Urban Projects, when I refer to “simple and plain” architecture, I do not mean that each individual building does not need to be of good design (I believe they do). I simply mean that, since fragmentation into diverse buildings is a recurrent theme in these projects, the constructions could be seen as smaller separate jobs of architecture (projects are often phased out, and commissioned to different professionals). Nevertheless, the suggested notion of precision – that I so much advocate for – should be implicit already in the scope of urban design scale (with definitions of envelopes, accessibility and materiality), and then carried through and enhanced at the scale of buildings by the hands of sensitive architects (if not the same author).

⁴⁵ Frampton, Kenneth. Remarks from Lecture “The Catalytic City: Between Strategy and Intervention,” In *Newsline Columbia University*, January 2002, <http://www.arch.columbia.edu/index.php?pageData=1433> (accessed March 27, 2006).

Further elaborating on this idea of a precise “magical urban piece,” I do not believe that every project realized in Barcelona, Bogotá, Paris or Chicago carries this suggested notion. They could have been successful as catalysts for a number of different reasons, and there is nothing wrong with that. But since my proposition for São Paulo is about doing the least effort for a maximum effect, would it not be better off if we optimize the chances of success by having a precise design?

Perhaps I can use a more striking counter-example here: the program *Favela-Bairro* in Rio de Janeiro (figure 2K). I do appreciate the (nearly heroic) efforts to construct public daycare and other similar facilities, so as to disseminate clues of urbanity.⁴⁶ But unfortunately, the scenery in a *favela* is so depressing, that the feeling that “anything goes” predominates. There is no urban context in a normal sense that can offer clues to the new projects. The new interventions are designed as to solve an enigmatic problem. Addressing a similar issue, the proposition of the Unified Educational Centers (CEUs) in São Paulo seems to me a more sophisticated approach (figures 2L, 2M and 2N). Developed by São Paulo’s Municipal Office of Buildings (Alexandre Delijaicov et al), the 24 constructed projects (another 26 on the boards) were defined as “school-parks” centered in peripheral areas in the need for educational and recreational spaces. Architect Delijaicov explains that these complexes with classrooms, gym, theater, daycare and swimming pools, are to act as anchors complementing a network of smaller existing public schools that do not count with all this equipment.⁴⁷ I consider this a more comprehensive approach, and their design proposition more successful than Rio de Janeiro’s counterpart. With multiple buildings, the CEUs in São Paulo are organized in a way to legibly shape the open space, thus acting as a central attraction for the needing population. There



figure 2K |
Favela-Bairro in Rio de Janeiro
New daycare center in Rio das Pedras favela. From Machado, Rodolfo (ed.) *The Favela-Bairro Project*. (Cambridge: Harvard, 2003), 20.

46. See Machado, Rodolfo (ed.) *The Favela-Bairro Project*. (Cambridge: Harvard, 2003).

47. Interview with architect Alexandre Delijaicov, January 2006.

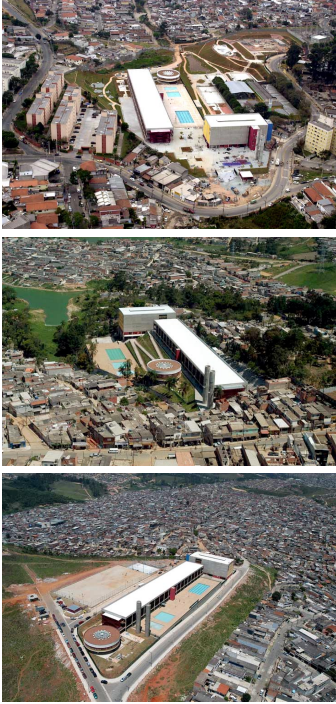


figure 2L | 2M | 2N |

CEU Projects, São Paulo

In sequence, new Unified Educational Centers for the neighborhoods of Butantã, Navegantes, and São Mateus. Photographs by David Rego Jr, conceded to the author by EDIF-PMSP.

is in these projects the clear cut of urbanity amidst unorganized sprawl. Delijaicov teaches at the University of São Paulo, and has not tried his hand at more suggestive and richer urban contexts yet. Nevertheless, his framework is closer to what Frampton urges – an extra degree of consciousness in the academic realm about the importance of catalytic projects:

“I would like to advance the case that landscape in the broadest sense of the term and piecemeal urban design should both be given a high priority in any reformulation of architectural education in relation to contemporary practice. In my view, we need to adopt a self-consciously critical interventionist attitude towards the miasma of the megalopolis irrespective of any environmental legislation that may or may not be brought to bear on the problem over the long haul. While there is a limit to what may be achieved by any one individual designer or design brief, it is equally clear that each intervention ought to be oriented towards some kind of catalytic critic of the status quo.”⁴⁸

In summary, in making this thesis proposition, I feel confident that I am following along current thoughts in urbanism.

48. Frampton. “The Catalytic City: Between Strategy and Intervention.”

03 | Overarching Concept for São Paulo

Thus far, we have seen the formation process of São Paulo in Chapter one, and suggestive precedents of Urban Acupuncture in Chapter two. My intention is to contrast a chaotic situation that seems impossible to begin to solve with the simplicity of a powerful idea. There are two main reasons that led me to investigate Urban Acupuncture as a strategy for São Paulo. First is the traditional weakness of the city's public sector in controlling the urban environment – therefore my questioning of what would be the minimum that the government can do and still expect good results. Second is the observation of the historical growth of São Paulo, based on the center-periphery dialectic – which gives the opportunity to act in a single meridian affecting the entire metropolis. With this in mind, I will now attempt to formulate an overarching concept of Urban Acupuncture for São Paulo.

Building on Solà-Morales's definition of "Urban Projects,"⁴⁹ I believe that in order to restore urbanity and to re-attract residents to live in Downtown São Paulo, the new interventions have to contain the following four interdependent characteristics: they have to be (1) catalytic to the renovation of the surroundings, (2) small in size and in program (quotidian uses), and therefore economic and able to be implemented in a short period of time, (3) contain or condition good public spaces, and (4) precise in the location and in the design.

49. see page 55.

3.1 Catalytic

I would like now to elaborate on Frampton's belief that new projects, claiming to be "interventions" in the built environment, have the duty, the moral obligation to be catalytic of the renovation of its surroundings. To be able to respond to challenging urban problems, and to emanate positive energies to their settings are exactly the tasks that the current generation of urban designers face in Downtown São Paulo.

The importance of Downtown São Paulo and its problems

There are many areas in the metropolitan region of São Paulo that should receive the attention of an urban design proposition such as the one that I detail here. However, differently from acting homogeneously throughout the territory on virtually every neighborhood as did Barcelona in the 1980s, I argue that in São Paulo there is one specific spot that clearly deserves more consideration than others: the downtown and its surrounding neighborhoods (see figures 3A and 3B).

These areas need special attention because of their potential to re-accommodate about half a million people by simply utilizing the built stock of apartments and houses, and office towers converted into residential units, once urbanity is restored to their streets.⁵⁰ As we saw in Chapter one, there has been a historical contradiction in the formation of São Paulo: the emptying of the infra-structured city center while sprawling indiscriminately onto non-structured lands. The necessity to revert this illogical process has become a consensus among Brazilian urbanists. I share this thought, and as many urban scholars in São Paulo, I would like to limit myself to demonstrate a solution to the historical core of the downtown, as opposed to all the central neighborhoods. Concentrating in the

50. Estimative cited in interview with architect Victor Eskinazi from *Viva o Centro* Association, January 2006.

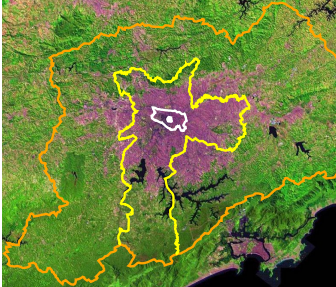


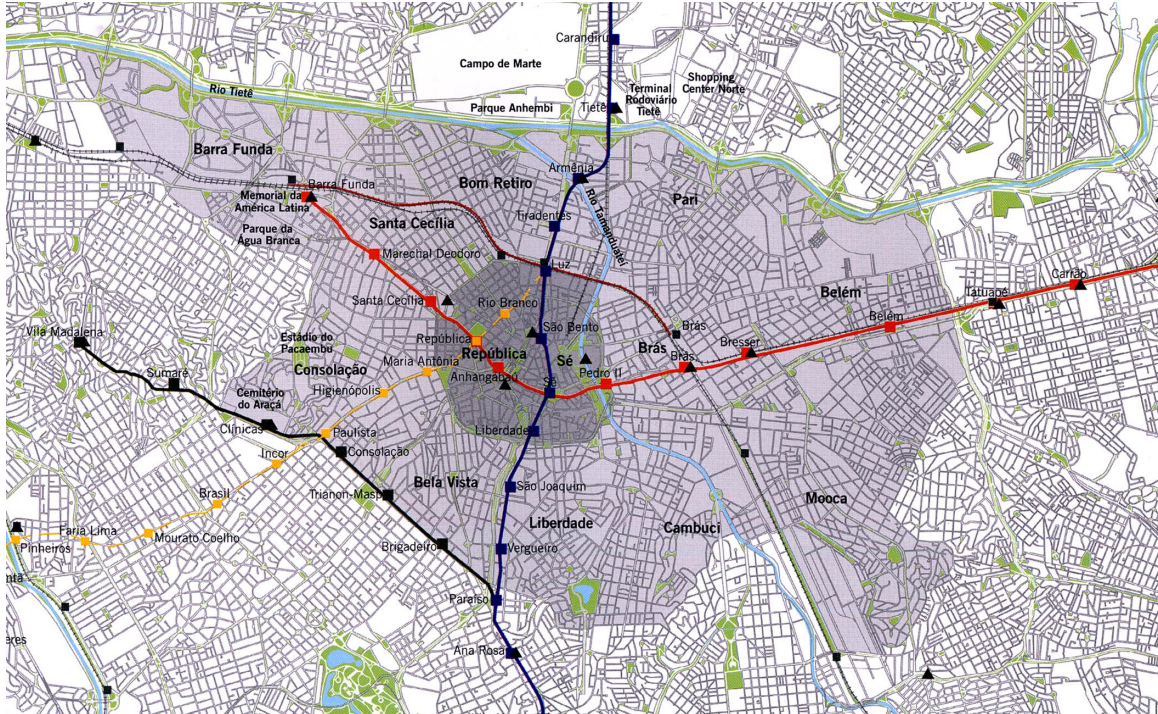
figure 3A |
Political-Administrative Divisions of São Paulo
 Orange line represents the Metropolitan Region of São Paulo; yellow, the city proper; white, the central neighborhoods; filled white, the downtown under consideration.

inner core is a valid choice given the emblematic value and the level of urban complexity that the area offers. The belief is that by tackling the central nerve by showing a set of solutions to the most complicated problems, the surrounding neighborhoods would be able to “learn” and to replicate the positive changes. This process in itself would be a demonstration in the belief of the catalytic effect of the interventions.

The general idea is to promote the return of the residential component to downtown in the expectation that the area could be perceived as any other typical neighborhood (of the formal city, I should add) – lively, safe, and well-conserved by the presence of local inhabitants. But if the reversion of the dialectic center-periphery is so logical, why has downtown not been rehabilitated yet? To begin to answer this question, a good exercise would be to analyze the character of the problems that affect the area. As I have mentioned in the historical overview, the “tipping point” for the degradation process of downtown was the transportation hub that took place in the most important built heritage of the city. With the character of a major transfer station, the incipient process of evasion of inhabitants in downtown escalated. Upper class housing, commerce, and offices left the area. Streets were pedestrianized. Suddenly downtown became a mere passing route, losing the character of a livable place.

History explains the origins of this tipping point. The radio-centric Plan of Avenues by Prestes Maia from the 1920s was not conceived for the territorial extension São Paulo presently has, with about five-million private cars on the streets.⁵¹ Obviously, not every car crosses downtown on a daily basis, but the notion of convergence to the area is visible, especially since most of the ring roads of the original plan were not completed. Affecting the

51. Total of licensed cars in São Paulo in 2004, according to the National Association of Vehicle Producers - ANFAVEA. <http://sp450anos.terra.com.br/interna/0,,01236169-E12551,00.html> (accessed March 12, 2006).



downtown more pronouncedly is the same notion of convergence that draws hundreds of bus lines with millions of commuters daily to the area. Also, in the 1970s the subway system was implemented in a manner that reinforces the centrality of downtown (figure 3C). As mentioned before, the stratum of the population that uses public transportation is usually the low-income one, commuting from the peripheries (the only territorial option given to them) to the formal city. The contrast between the massive influx of these commuters during the day and the lack of activities in the evening became aggravated by the declining number of residents in the same area. The problem of urban degradation, to put it in simple terms, snowballed with the character of metropolitan transfer station that took over the traditional downtown.

figure 3B |
Downtown and Central Neighborhoods
 In light gray, the central neighborhoods and in dark gray, the historical core. The subway lines are in blue, red, dark green and yellow. From: Regina Meyer and others. *São Paulo Metrópole* (São Paulo: Edusp, 2004), 193.

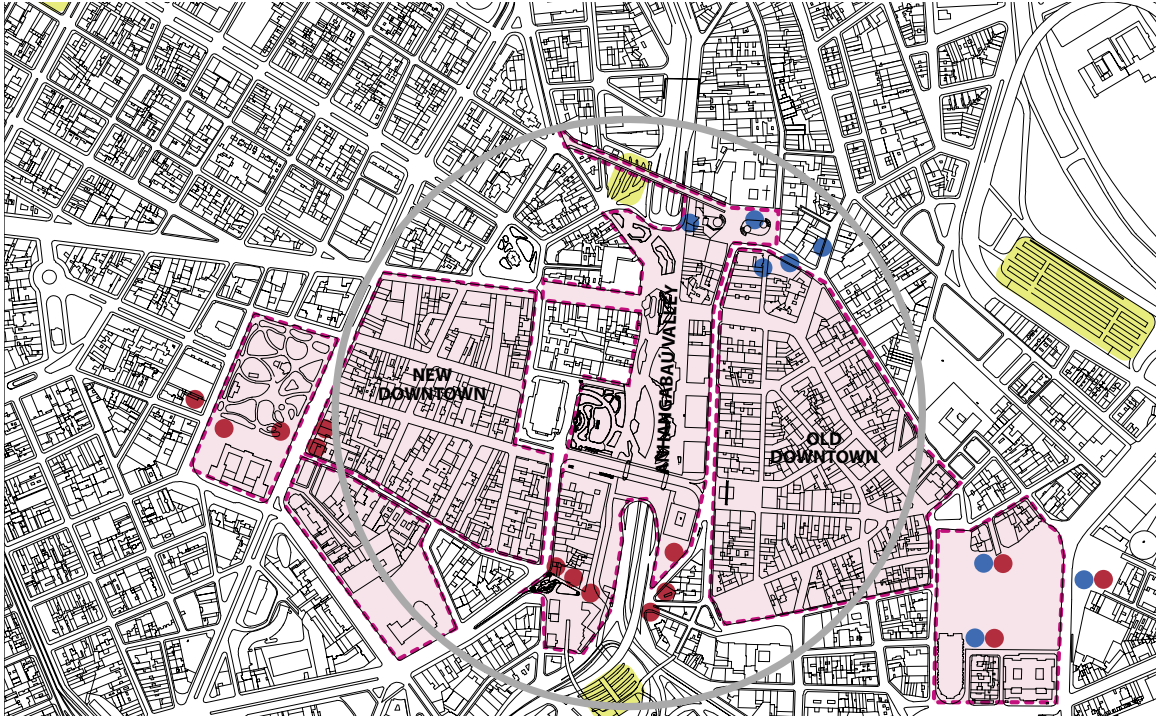


figure 3C |
Downtown Transportation System
 In yellow, the bus terminal stations. Dots represent entrances to subway stations. The pedestrianized areas are highlighted in pink. The 1 km shed corresponds to a walking distance of about 15 minutes. Diagram by the author, 2006.

So here I make a big disclaimer about my proposition of Urban Acupuncture for São Paulo: small architectural interventions that I tend to suggest cannot tackle this particular metropolitan issue. My proposition runs in parallel to an existing plan to restructure the entire public transportation system at that proper scale: the Integrated Plan of Urban Transportation – PITU for 2020. This is a comprehensive plan, coordinated between the city and the state governments, that has been progressively implemented since its publication in 2000.

In regard to downtown, the strategy is the restructuring of the bus lines in order to minimize the number of buses that reach the city center. This is being carried out by the creation of a

hierarchy between neighborhood-scale small feeding-lines, and larger metropolitan trunk-lines. In simple terms, not every single neighborhood would have a bus line going downtown but rather commuters would be able to transfer to other buses, subway or surface trains at other locations of the city. The notion of poly-nuclearization is used in this scheme, but it would be unfair to say that an urban conurbation of twenty-million inhabitants does not already have such sub-centers. There is a need to improve the metropolitan transportation using these bases in a more effective way. Decentralized connectivity to the existing and future expansions of the subway (a fourth line is under construction), and to the recently renovated surface train lines, is a key to divert the influx to the city center (figure 3D). The expectation is that progressively these changes in transportation will visibly affect downtown by decreasing the number of commuters in that area. This would be the ideal set up for the complete recuperation of an area severely degraded.

In this work, however, I would like to take the extra challenge and consider the current condition of pedestrianized streets which have little sense of urbanity but rather an almost surreal feeling of a large deteriorating campus. In the scenario that these streets are reopened to car traffic, I believe that my proposition would still be a very valid one, but that it should be adjusted to contain parking garage and other demands from the vehicular usage.

Perception of Systems

As the problems have snowballed and accumulated in the course of about fifty years, it is impossible to list the problems in a specific order of importance. But I want to argue that the most general issue – from which many other problems unfold – is the lack of urban legibility in the area. Here I speak about streets that are

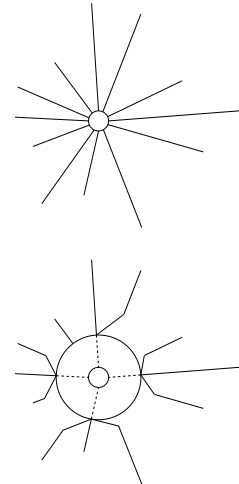


figure 3D |
Diagrams of Bus Systems
The upper diagram abstracts the current arrangement, as opposed to the more rational proposition currently under implementation (diagram below). Images by the author, 2006.



figure 3E |

Downtown Current Conditions

Downtown suffers from streets flooded with peddlers, commercial signage, and high pedestrian traffic, among other problems. Photograph by the author, 2006.

closed for automobile traffic, plazas that are inappropriate for any civilized usage, historical buildings that have their façades masked by cheap commercial signage, sidewalks or pedestrianized streets taken over by informal street vendors, entire buildings emptied or occupied by squatters, dirtiness, and so on (figure 3E). The lack of “positive” legibility affects the downtown and that is the notion that I believe can be reverted through Urban Acupuncture.

The lack of positive urban legibility propitiates conditions for a homeless population to occupy the public realm, for criminal activities to happen, and for many other problems related to the perception of the environment. With this scenario, the lack of interest from whoever can afford to stay away from the downtown becomes understandable, and consequently the lack of interest from any private company to invest in the area.

This brings me back to the first reason why I believe Urban Acupuncture is an appropriate strategy for São Paulo. As we saw in Chapter one, since the 1930s the public sector has lagged in promoting major works in urban design, and instead it has primarily invested in the opening of roadways as a default response to the increasing housing demand. Even nowadays this is the common practice of the government. The traditional limitation of actions in urban design is now combined with the weakened resources (both financial and operational) of the public agencies. An inevitable solution for downtown is to stimulate and to engage the private sector in the process of urban renovation. This logic follows the initial concept that we can possibly get big changes out of little things.

The expectation is that by initially doing little actions that are still within the reach of the public sector, the private sector would feel

compelled to re-invest in the downtown – and with that, reestablish urbanity in the area. Ideally, at some point, the wave of renovation could be sustained solely by private interests learning from previous projects – the notion of a self-replicating idea.

Perhaps I can be more illustrative here about how a renovation project can trigger another. In a simplistic way, let's take the length of a city block on a decadent avenue. What happens if the buildings at the two corners of this block receive some sort of public incentive for being renovated, and are later successfully commercialized? Would it not make sense for the remaining middle part of the block also to be renovated, this time by private developers with less or no public incentives? And when the entire block is renovated and re-occupied, would not the following block be also compelled to do the same? Of course these are simple terms, but I believe that similar effect could happen to downtown São Paulo.

In order to achieve this “wave” of renovation, I defend the exploration of “systems,” a notion that draws inspiration from Jacobs’ “eyes upon streets,”⁵² Kelling’s “Broken Windows Theory,” and primarily from Lynch’s theory on environmental perception. Lynch argues that there are elements in the city that help passersby to establish legibility of the urban environment.⁵³ I believe that isolated architectural interventions – when placed in a series being perceived as a singular system – can produce a positive sense of urban legibility in the way Lynch advocates it as an essential quality in a city. Moreover, the emanation of newness from one renewed corner to the other would “mask” degraded areas in between, giving the sensation of a holistic transformation when perhaps only a few nodes (to use Lynch’s terms) have been tackled. This characteristic, allied with the successful occupation of the

52. Jacobs, Jane. *The Death and Life of Great American Cities*. (New York: Random House, 1961), 35.

53. Lynch, Kevin. *The Image of the City*. (Cambridge: MIT Press, 1960).

built stock will give the sense of security that is missing in the downtown's public realm nowadays.

Not only can the renovation of existing buildings produce this expected effect but also, depending on the architectural vocabulary employed, new urban projects can relate to each other even when apart a few blocks from each other. Some precedents shown in the previous chapter suggest how this may be done by placing buildings in series as if dominating the cityscape in between.

Catalytic is a crucial characteristic for my concept of Urban Acupuncture addressing Downtown São Paulo because it gives the opportunity to act in few locations in the hopes that the new interventions will serve as demonstration of urbanity to the immediate surroundings. The deliberate aggregation of these interventions in easily perceived systems seems to be the best way to achieve the beneficial catalytic effect.

3.2 Small

I argue that smallness – in terms of physical dimensions (moderate costs, quickly implemented), and in terms of program (promotion of quotidian activities) – is a desired characteristic of the new interventions in order to attract the residential population back to the downtown and thereafter to rehabilitate the area.

Currently, downtown São Paulo lacks of sense of legibility and security. In addition to, or as consequence of, these problems, the permanent population downtown is immensely inferior to that during the day. It is estimated that more than two-million people cross downtown for work, and only 70,000 actually live there

(in 1940 the area housed 33% of the city's population, in 2000 only 4%).⁵⁴ The large existing built stock requires investments of the private sector in the renovation of old buildings. Private developers in São Paulo, as the city's history suggests, are accustomed to making easy money. They are not compelled to invest downtown with all the risks in the present scenario of dirtiness, insecurity, and many other problems.

In an attempt to make the area more attractive, the public sector has explored the notion that downtown concentrates most of the cultural and institutional buildings in São Paulo. The city center has been traditionally the main address for official functions such as the Courthouse. However, this character never seemed to bring any perceptible benefits to the street life. Nevertheless, in 2004 the City Hall itself has been relocated by Mayor Marta Suplicy to the Matarazzo building in the Anhangabaú Valley, and so have many other municipal secretariats. More aggressively, and perhaps influenced by international examples (Barcelona, Bilbao, and others), the city and the state have been investing in the cultural theme of the region. The idea is to give more livability to downtown, to encourage the visit of the middle and upper classes there, and as a result, to change the perception of this being a decadent area. The government's expectation was that the process would trigger the interest of the population to live downtown and with the demand would come private investments to renovate the existing stock of buildings.

The "Cultural Approach:" the Case of Luz Neighborhood

Here, I would like to describe why the "cultural approach" has not helped to attract new inhabitants to downtown, and the notion of "smallness" that I advocate for in my Urban Acupuncture strategy.

54. Inter-American Development Bank. *São Paulo Downtown Renewal Program: Loan Proposal*. IDB (BR-0391) 2003, 2-3.



figure 3F |
Pinacoteca do Estado
 Museum renovated by Paulo Mendes da Rocha, concluded in 1998. Photograph by the author, 2006.

Since 1998, with the renovation of the *Pinacoteca do Estado* (figure 3F), downtown São Paulo has been presented with a number of world-class museums and other cultural facilities. They are excellent but do not appeal to every citizen at all times of the day. The massive investments in cultural buildings do not affect the local scale as initially expected.

A simple look at any internet directory reveals that most museums and cultural buildings downtown (old or new facilities) do not open after 5pm. With this, the idea of attracting workers (local or not) to spend more time downtown after business hours is suppressed. Another problem is that both the program and the design of these institutions are typically not appealing to the majority of the population in São Paulo. And in some cases, certain buildings seem almost deliberately undemocratic, such as the multi-million conversion of the old train station Julio Prestes into a sophisticated symphony hall (figure 3G).



figure 3G |
Sala São Paulo Symphony Hall
 Train Station partially renovated as symphony hall, housing the São Paulo State Orchestra. Renovation by architect Nelson Dupré, completed in 1999. Photograph by the author, 2006.

The audience is unfortunately composed of a limited portion of the population, who find it unfortunate that the State orchestra is housed downtown. Symphony listeners going to *Sala São Paulo*, as the hall is called, usually drive there, park their cars in an adjacent lot, and go home after the concert. They do not spend a minute walking downtown, both because there are no activities (coffee-shops, restaurants) that could attract them, and because of the feeling of insecurity that they have about the area. This may be fair when that specific area is nicknamed *Cracolândia* (“Crackland”) because of its concentration of crack addicts, drug dealers and prostitutes. The official approach of tackling urban problems by the high contrast of uses and classes does not seem to work in São Paulo.

At least this has been the case for the Luz neighborhood, the traditional area where São Paulo's first train station was implemented. In the stretch of about one-mile, the city concentrated – and I argue that this is one of the problems, concentration – efforts to create a vibrant area by converting old structures into cultural buildings. In addition to the *Pinacoteca do Estado* and *Sala São Paulo*, the government also converted the old building known as *DOPS* (used in Brazil's military period for the torturing of political prisoners) into an art museum, and more recently parts of the city's first train station (Luz) has been transformed into a museum whose theme is the Portuguese language. In the same stretch, São Paulo also has the *Jardim da Luz* (landscaped according to English aesthetics), the educational complex of FATEC, the Luz Monastery, the São Cristovão church, and a traditional military regiment – all along Prestes Maia Avenue (the main north-south avenue across downtown, named after the urbanist who proposed the radio-centric scheme of roads). Most of these venues are in a good state of conservation and attract a decent number of public. However, the main problem of this area is the lack of legibility and sense of connectivity among these institutional buildings. Even with all the investments, all the potentials of good architecture and art collections, they have not been able to transform the immediate surroundings.

In an attempt to solve this key problem in Luz, São Paulo was one of the cities supported by the federal program called “Monumenta” in 2005, which is a R\$20 million budget destined to improve the image of deficient neighborhoods. Although it is not clear yet how the money will be applied, Heloísa Proença, president of São Paulo's Municipal Office of Urbanization (EMURB) insinuates the direction: “there have been investments in the renovation of historical buildings. Now we have to integrate them,

by improving the public space, the street, the plaza.”⁵⁵

My argument is that cultural buildings, hermetic and not always democratic, do not contribute by themselves to the rehabilitation of an urban area. They have to be complemented by “smaller” initiatives that relate more to the legibility of the open space. My notion of “smallness” here has a double connotation (intrinsically related to each other): that of the physical size, and that of “simpler” programs that I mostly advocate for. What I mean by this is that a proper scale and openness of utilization with quotidian activities should be encouraged in order to attract life to the degraded downtown. Furthermore, who can argue that a bookstore is not a provider of culture as a museum is? But a corner bookstore performs a different set of urban actions than an austere art museum. I am here advocating for down-to-earth programs, commercial and small scale institutional activities that seem to happen naturally in successful urban areas – but that in downtown São Paulo have yet to be introduced.

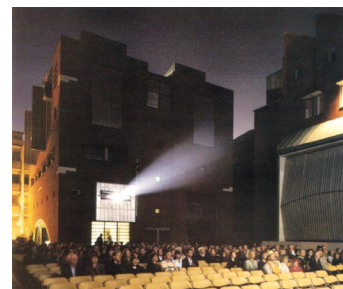
An example of how “culture” as an encouraging renovation theme works well, by simply being “smaller” – that is, more related to quotidian living conditions – is the rehabilitation of Temple Bar in downtown Dublin. There, the city created a semi-autonomous real estate development firm which took charge of renovating the historical buildings and public spaces after a meticulous inventory of the existing conditions and design competitions. In most buildings, the ground floor has been dedicated to commercial activities, but in special prominent locations the ground floor or sometimes the entire building, house small cultural facilities such as art galleries, schools of dance, painting and others related to arts. Some open spaces are also engaged in the cultural activities of the area, as is the case of a small square by the school of photography,

55. Pitta, Iuri. “O Marco Zero de uma Nova Luz.” *O Estado de São Paulo*, June 06, 2005, C1.

utilized for open-air screening of movies (figures 3H and 3J). Making use of culture as a theme for the neighborhood, Temple Bar is now a commercially successful area, with bars and restaurants attracting visitors from Dublin and abroad. The renovated buildings are now apartments not only for artists but for whomever can afford to live in such a desirable area. Now that Temple Bar is stabilized as a market, the development company created by the city has been converted into a non-profit organization, re-investing the rental revenues to subsidize the cultural activities of the neighborhood and the rents for artists. With all this, artists' working, living and exhibiting spaces have become the theme that keeps commercial interest in the area, which then bring revenues for keeping the artists – a successful mutual cooperation.⁵⁶

Existing Projects for Smallness: Spurring Housing

In addition to the “cultural agenda” that has been progressively implemented in multiple instances in São Paulo, Mayor Suplicy (2001-2004) launched a couple of interesting programs for downtown. One is called *Ação Centro* (Action Center) and envisioned the investment of USD 168 million in the renovation and maintenance of the public space and historical buildings in the region. From the total amount, USD 100 million would be financed by the Inter-American Development Bank (IDB), through an already approved process. This is an important achievement, considering that the sum is the highest investment ever granted by the development agency to a single program, and the stringent technical requirements for the project approval. However, with the transition between two mayors of different parties in the City Hall (mayor Suplicy was not reelected in 2004) the program has been on hold. IDB's files reveals that USD 89 million has not been undisbursed as of March, 2006.⁵⁷ The money is expected to be withdrawn according to a pre-established



figures 3H and 3J |
“The Ark” Square at Temple Bar
 A well utilized square for open-air projections. From Temple Bar Properties. *Temple Bar: The Power of an Idea* (Dublin: Gandon, 1996), 137 and 173 respectively.

56. Temple Bar Properties. *Temple Bar: the Power of an Idea* (Dublin: Gandon, 1996).

57. IDB <http://www.iadb.org/projects/Project.cfm?project=BR0391&Language=English> (accessed March 30, 2006).

schedule, provided that anterior stages have been well-concluded. These sequential investments have not been happening since the current administration has decided to re-evaluate all the priorities envisioned by the program. Discontinuity in governmental programs is a chronic problem in Brazil, and the current administration seems to follow the narrow-minded agenda of negating whatever has been done in the previous term.

The other program tentatively implemented by former mayor Suplicy was called *Morar no Centro* (Living in the Center), which focused essentially on the creation of credit lines, both to the pioneering developers and to the low-income population that would be interested in living downtown. The focus on low-income housing can be seen as a palliative solution to the high demand that affect the city in the form of *favelas* and other sub-normal types of housing. However, the economic situation in the country is such that, with all the level of informal employment, few low-incomers could fulfill the requirements typically asked for bank loans.

I do appreciate the efforts to address low-income housing in São Paulo, however I would suggest a closer investigation of more sophisticated systems of offering this support. One that seems more democratic, as it allows for seamless blending among different social classes, is the mechanism of affordable housing widely used in the United States. The government promotes, through incentives, a market-driven supply of subsidized units for allegedly low-incomers within developments that usually attract middle and sometimes upper classes. A classical example is the increase in potential of site utilization – Floor Area Ratio (FAR) – to a new or a renovation development, with the proviso that a certain percentage of the apartments is destined to families whose commitment to rental would otherwise exceed 30% of

their income. I believe that this is a more sophisticated way to provide low-income housing since it transfer this task to the private sector, who calculate under current market conditions (site value, construction costs, demand absorption) whether it is worth or not to build more in the exchange of subsidizing approximately 15% of the units. And in the many cases that affordable housing is desired by the private developers, low-incomers are accommodated in buildings of quality much superior than that of traditional public housing.

In São Paulo, in addition to the mentioned difficulty of prospective clients' obtaining credit, developers are usually challenged by the characteristics of the downtown buildings. Typically old, buildings that once had one nominal owner are nowadays in the possession of many family descendents often with diverging interests. Therefore, legal issues constitute a severe impediment to many development projects. Also many of the buildings under consideration are landmarked as of historical interest. What may seem an interesting marketing advantage, creates in many cases, according to the assigned level of building protection, a negative impact on the costs of renovation, therefore preventing the feasibility of the redevelopment. Also, given the age of the constructions, the inventory is mostly composed of small buildings with few marketable units. Economy of scale is a major concern to developers who are not interested in dealing with small projects with high expenses. Again, all these problems are in addition to the risk of pioneering investments in a perceived degraded area of the city.

Some of these issues can and have to be addressed through the implementation of policies from the public sector. Financial incentives of different sorts are necessary, but also agility in

the legal system. I include these propositions in the notion of “extra-small,” if not invisible, changes in mechanisms that can nevertheless spur housing, working concurrently with the improvement of urban legibility and livability through the other notion of “smallness:” more quotidian programs and more open-ended interventions. I will now elaborate on these.

How Small?

In physical terms, what is the ideal operative dimension for each condition? How small is not too small and leads to the dissolution of focus altogether? In programmatic terms, what is the specific, small and down-to-earth program to be suggested in a certain location? What is the ideal dosage for each problem in order to be the most effective?

I argue that architectural projects are the limit of smallness; this includes the design of open spaces, of a corner store, of a simple canopy. I do not believe that it can be smaller than this. Urban furniture, lighting equipment and so on, are just auxiliary to the architectural dimension suggested here. Conversely, I believe that it does not take a dimension much larger than that of architecture to be able to perform grand urban changes. This is in line to what Solà-Morales observes too:

“the size is not the scale. ‘Scale’ is the dimension of reference to which we relate our intentions, our thinking, our project. ‘Size’ is the physical dimension, concrete, quantifications of what we do. To do large scale things, not always large size is required. Many of the large projects of today, London Docklands, Battery Park, large size projects are irrelevant as reflection, as intention, pieces beside trivial scale. Many minimal projects, at the corner of two streets in a neighborhood, along a expressway, by its strategy become

reflections of large scale. The profusion of the small is not a compliment to smallness, but of the development of an organism, of a system, tending to multiply its small parts and increase the difference.

This seems to hold true especially in the area under consideration in this work, with São Paulo downtown's closely knit urban fabric of consolidated infra-structure and old buildings. There is no need, nor means (financial and legal), to scrap entire city blocks and propose something entirely new. This is why urban projects observed in the precedents can be the little adjustment so much needed to create a decent public environment out of chaotic settings (figure 3K).



figure 3K | **Proposed Scale of Work**
Diagram by the author.

3.3 Public Spaces

The creation or the renovation of small civic spaces should be a priority in the first set of Urban Acupuncture interventions in São Paulo. The high demand for such open spaces can be measured by the success of an informal square called *Largo do Café* after working hours. This is probably the only gathering spot for those professionals who want to have a drink in downtown, simply encouraged because of the concentration of two or three bars in front of a little square with apparently no other quality. In contrast to the Anhangabaú Valley or Sé Plaza – both large open spaces that do not offer comfortable spots for such elemental use as sidewalk tables – *Largo do Café* is cozy and lively, producing a sense of security that is rare to the area (figure 3L).

figure 3L | **Largo do Café**
One of the rare open spaces in the downtown where one feels safe, as a result of lively bars and sidewalk tables. Photograph by the author, 2006.



I would like to multiply the number of open spaces similar to that of *Largo do Café*. Downtown São Paulo has a variety of open spaces; however few are in state of utilization by the public. The homeless population has taken over most of the Sé Plaza, the República Plaza and many other smaller squares. I would like to promote the re-qualification of these open spaces, with a range of actions that go from the simple cleaning of a square to the entire renovation of a few large plazas. In fact, a couple of problems that I would like to address are the excessive size and the bad design of some plazas that do not reference the human scale. These characteristics are notorious in the plazas affected by the construction of the subway system in the 1970s (Sé Plaza and São Bento Square among others).

In the interventions suggested in the next chapter I will not demonstrate thoroughly the design of each open space, as I believe that this should be done by other professionals with more information than I currently have, but rather I will suggest how each public space could be conditioned, utilized and programmed through legible edges offered by surrounding buildings.

Contributing to successful open spaces, I would like here to acknowledge the positive use of events as “small” programs that can catalyze livability in public spaces. Good examples have traditionally existed in many cities, but São Paulo does not seem to engage its prolific cultural scene systematically with an immediate public setting. New York’s Central Park with summer concerts and performances (“Shakespeare in the Park” for example) has been successful in attracting New Yorkers to the recreational venue. Similar effect have the events held at the new Millennium Park in Chicago. But more interesting inspirations to São Paulo are probably the smaller events contextual to their local urban

conditions. For example, Providence’s “WaterFire” has become a major attraction for visitors to the city by engaging the public every other weekend to watch a ritual of lighting bonfires placed on the river (figure 3M). This simple event has become the symbol of Providence’s riverside revitalization, and has contributed to bringing revenues in commerce and tourism. Another simple and site specific event is the one that occurs in the small plaza at *Rue St. Antoine* and *Rue de Bleury* in Montreal. The locals know that daily at 6pm there is an automated system that releases mist and water from the plaza’s fountains. This simple device, well-coordinated with landscape design, attracts visitors and offers a singular notion of urbanity.

Moreover, I believe that the programming of coordinated events throughout different projects can facilitate the perception of these being a “system” as I suggested as being ideal for the catalytic effect. Combined with the previous characteristic of smallness, I propose a legible system of small-scale public spaces surrounded by quotidian program such as bars, coffee-shops, restaurants, grocery stores, delis, bookstores, pharmacies, art galleries, schools, and other typical commerce and institutions that contribute to a lively neighborhood.

3.4 Precise

I consider “precision” the most important characteristic for the new interventions, and the term is meant in two ways. In order to get the most effective results from minimal interventions, I argue that the new projects have to be (1) precisely located, and (2) precisely designed.



figure 3M |
“Waterfire” in Providence, Rhode Island
Event that symbolizes the renovation of Providence’s riverside, attracting many visitors to the city. From <http://dev.rreynolds.net/images/waterfire.jpg> (accessed on March 28, 2006).

Precise Location

“Location, location, location” is probably the most famous dictum in the real estate developers’ practice; location is also an important attribute for any new intervention in downtown São Paulo. Private developers, before signing contracts, usually produce what they call “market studies” for the site under consideration. This happens from one of two assumptions: either the developer already has a site and is looking for a use for it, or the developer has a defined use and is looking for a good site. A developer in the search of a site to install a drugstore, for example, would involve in his market study the analysis of demographic profile of the immediate population, the number of vehicles and pedestrians passing by his prospective location daily, the prominence of the site, and so on. If there is such a pre-established criteria for the private sector, why cannot the government intervene based on similar attributes? I believe that Urban Acupuncture can draw clues from what is already there, from fluxes, from axes, from potentials reserved in historical buildings, and so on, in order hit to the “precise” spot when intervening.

In downtown São Paulo, for example, it is estimated that between 400,000 and 1.2 million people cross the *Viaduto do Chá* (bridge that overpasses Anhangabaú Valley) every weekday. This is simply a massive influx of people who could be stimulated by one or a few new interventions made along this axis, carrying with them the information of newness and rehabilitation in a mental map to wherever they go after crossing the bridge.

Market analysis that the private sector utilizes is often built up with hard data, but not rarely intuition also counts. I believe that the same holds truth for Urban Acupuncture. In our case, I believe that a simple guideline to the selection of locations would be to

observe the prominence of the place (physical and historical) and its potential of being positively transformed. If the attribute of prominence seems fairly easy to verify, the evaluation of potential is a much more complicated one relying on the vision of a designer.

Precise Design

As suggested in the precedents of Urban Projects in the previous chapter, design should be precise in the sense that it has to adequately respond to specific conditions of context. A precise design takes on the opportunity of organizing fluxes, framing views, referencing existing buildings, emanating newness, and many other positive effects that should be elemental for good designers. And more than responding to existing conditions, design can also be precise in referencing a topological dimension that is no longer explicit. I share the thought of Jean Nouvel who says that the ultimate role of the architect today is to “borrow” a site, an urban condition, and then transform and provide meaning to it:

I think that through small movements we can achieve an ethics whereby the situation becomes slightly more positive every time we intervene. We can try to locate a kind of enjoyment of place by including things that were not considered previously, which are the poetics of situations; we can evaluate completely random elements and declare that we are dealing with geography: ‘It is beautiful. I am going to reveal it to you.’ This is an aesthetics of revelation, a way of taking a piece of the world and saying, ‘I am appropriating this, and I am giving it back to you for your appreciation in a different way.’”

A good example of this notion of precision can be seen in São Paulo, with the work of Paulo Mendes da Rocha for the Patriarca Square, at exactly one of the ends of *Viaduto do Chá* with its



figure 3N |
Patriarca Square

The steel canopy designed by Paulo Mendes reinvestigates the open space. Photograph by Nelson Kon, <http://www.nelsonkon.com.br> (accessed March 24, 2006).

immense pedestrian influx just mentioned. The articulate architect seized the opportunity to reorganize the entire plaza by the simple insertion of a new canopy that protects the access to an existing underground gallery. The new canopy, an elegant – light and plain white – metal structure, hovers suspended by a single portico which directs the views and fluxes to the longitude of the plaza. The insinuated axis is that of the centennial desire of São Paulo to expand onto the other side of the Anhangabaú Valley (figure 3N).

Sometimes more than a metaphysical reference to the past, the notion of precision can be that of restoring urban conditions that were obliterated, deliberately or not. In São Paulo, this seems to be the case of many open spaces disqualified after the implementation of the subway system in the 1970s which was then employing a technocratic modernist design vocabulary. Probably the most problematic of these spaces is the Sé Plaza, as I have mentioned in the Chapter one.⁵⁸ This important plaza will be one of my foci of interventions in the next chapter, where I will attempt to graphically clarify my notion of precise design.

58. see page 35.

04 | Intervening in São Paulo

Before we proceed to the design propositions, a good thing would be to remind ourselves of the ultimate desire for downtown São Paulo, and of the overall concept that guides this work.

The ultimate goal is to completely restore the downtown into an important and lively neighborhood that happens to be the birthplace of the metropolis and the richest area in historical buildings and cultural facilities. In order to do this, two things are needed. Firstly, the massive influx of low-income commuters into the tightly knit fabric has to be diverted. This is being formally tackled by a metropolitan transportation plan, the mentioned PITU 2020. Secondly, urbanity has to be reestablished in the area. This is being incipiently attempted by different groups and interests. I argue that a systematic approach to this problem has to be implemented: namely, Urban Acupuncture.

The concept of this strategy is that by pinpointing the downtown with key architectural projects, users and owners of real estate would begin to perceive a positive change in the consolidated and chaotic structure. With this initial injection of public interests in fundamental aspects of urban design, ideally the private sector would pick up the wave of renovation and exponentially induce adjacent areas.

The main question then is, how to intervene in order to achieve this catalytic effect that will leave us closer to our goal? I believe this can begin to be answered by the following sequence of actions: (1) the establishment of larger systems, (2) insinuated by singular places, and (3) provided with precise design.

In the following design proposition, actions number 1 and 2 are related to each other to a point that it is difficult to discern which one is done first: the observation that singular locations tend to form an important path, or that an important axis has predisposition to house important elements along its line. The ordering is unimportant. However, I would like to initiate my intervention criteria by elaborating on the description of “systems.”

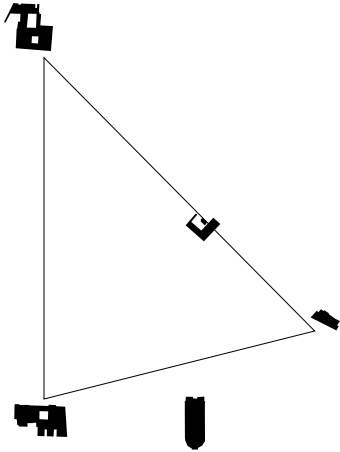
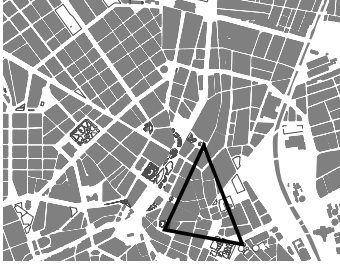
Systems in Downtown São Paulo

What distinguishes the strategy of Urban Acupuncture from the mere insertion of new projects arbitrarily scattered in the territory, is the grouping of these pinpointed interventions into one or more systems. New interventions, in order to be effective as catalysts of urban renovation, have to be placed along a linear composition that allows the passersby to make visual and/or mental associations among these.

Downtown São Paulo is a palimpsest of urban values, of meanings adulterated by the overwhelming ugliness of the area. But someone trained as an urbanist, familiar with the history of the metropolis, should be able to identify the importance of each street, each plaza, each monument of his/her city-subject.

The first idea that I have posed in this work is that “perhaps the most elemental task for the urbanist is to define locations”⁵⁹ when speaking about Jesuit Nóbrega selecting the triangular acropolis

59. see page 17



figures 4A and 4B |
System 1: Historical Triangle
 Location and diagram of the first set
 of proposed interventions. Diagrams
 by the author, 2006.

for the adventurous settlement of his religious order in 1554. The geographical configuration was so imposing that for 250 years the edges of this triangular plateau were the limits of the city. Each vertice of the triangle was incidentally celebrated by three different monasteries, each of them with an open space. These plazas are more or less identifiable nowadays, but certainly not as meaningful as they used to be. With the advent of machinery, more precisely with the advent of elevators, the ubiquitous dimension to be exceeded in constructions became the vertical one. The position of the ground plane is invisible in the sea of towers that São Paulo became. Geography is no longer visible to the eyes, only to the feet. I would like to restore the geographical importance of the historical triangle in the mental map of the *paulistas*. The paths among the three old monasteries, in addition to the Jesuits' square and the plaza in front of the Main Church (now Sé Plaza in front of the Metropolitan Cathedral) will conform my "System 1: Historical Triangle" with six interventions (figures 4A and 4B).

The superiority of man's engineering over an imposing geography is further celebrated by the construction of the *Viaduto do Chá*, a bridge built in 1892 that finally allowed for the transposition of one of the natural boundaries of São Paulo, the Anhangabaú Valley. Where would one choose to locate this bridge, such an important feature of progress? São Paulo at that time acknowledged another important sign of development, by placing the new bridge as a natural extension of *Rua Direita* – the first "straight street" connecting the Jesuits' square (*Pátio do Colégio*) to the backing Anhangabaú Valley.

It is the "backing" valley in the sense that the "front" of the city was clearly the Tamanduaté Valley. This is noticeable by observing the constructions made by the Jesuits, facing the extensive flatlands

of the Tamanduateí River. With the new extension of *Rua Direita* by the addition of the *Viaduto do Chá* bridge, São Paulo was then able to expand at level to the west. This opportunity was seized by the millions of incoming inhabitants that the city had to accommodate. This movement inverted the original front-back relation of the city and its geography. The *Centro Novo* across the Anhangabaú Valley became then the location of the new formal city, and the extensive flatlands of the Tamanduateí River were given to the industrial usage. This east-west axis, from the inner core of old downtown to the new side of the city, will constitute my “System 2: The Crossing” with another six interventions (figures 4C and 4D).

These two moments in history, the imposition of the geography to man, and then the overcoming of this nature by man’s engineering, are emblematic in the formation of São Paulo. The two systems these events describe are still, interestingly enough, subconsciously legible – either by the way important buildings remain placed along their implied axes, or by the way pedestrian fluxes are channeled to their routes.

Subconsciously legible for urbanists equipped with knowledge of the history of the place does not mean that the general public is able to perceive these urban structures and appreciate their value as suggested here. Believing that legibility of systems is a crucial element for the expected catalytic effect in Urban Acupuncture, my proposition is to make twelve small interventions, precisely located and designed to reinforce the perception of these urban features.



figures 4C and 4D |
System 2: The Crossing
 Location and diagram of the second set of proposed interventions.
 Diagrams by the author, 2006.

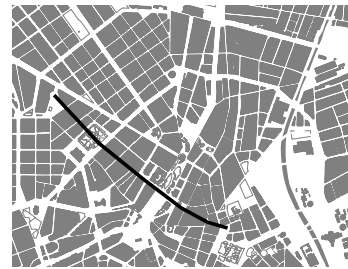
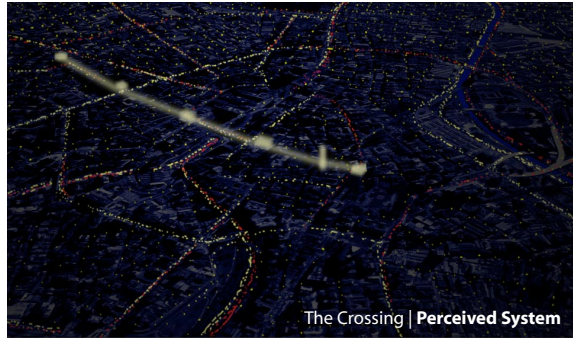
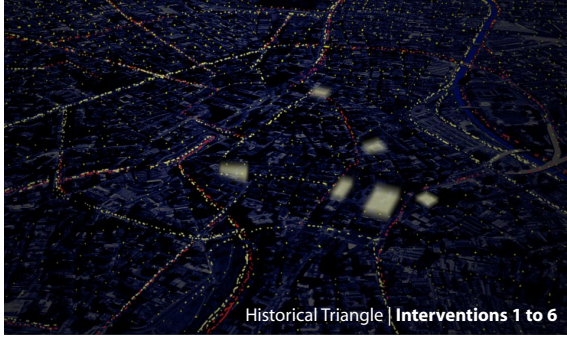


figure 4E | >>>
Rendering of Aerial Photographs
 With expected perceptions of the systems. Diagram by the author, 2006.



System 01 | Historical Triangle

Existing Conditions

The triangular plateau that configured the city of São Paulo since its genesis is barely noticeable today, although each vertex of the historical triangle is still somewhat highlighted by the three religious orders that followed the initial settlement of the Jesuits: Carmelites (east), Benedicts (north), and Franciscans (south).

SELECTED LANDMARKS

A. SÃO BENTO MONASTERY
Benedicts' monastery, still utilized as such

B. VIADUTO SANTA IFIGÊNIA
Pedestrian bridge in steel, second to connect the historical downtown across Anhangabaú Valley

C. SÃO BENTO SQUARE
Sunken plaza leads the way to the subway station

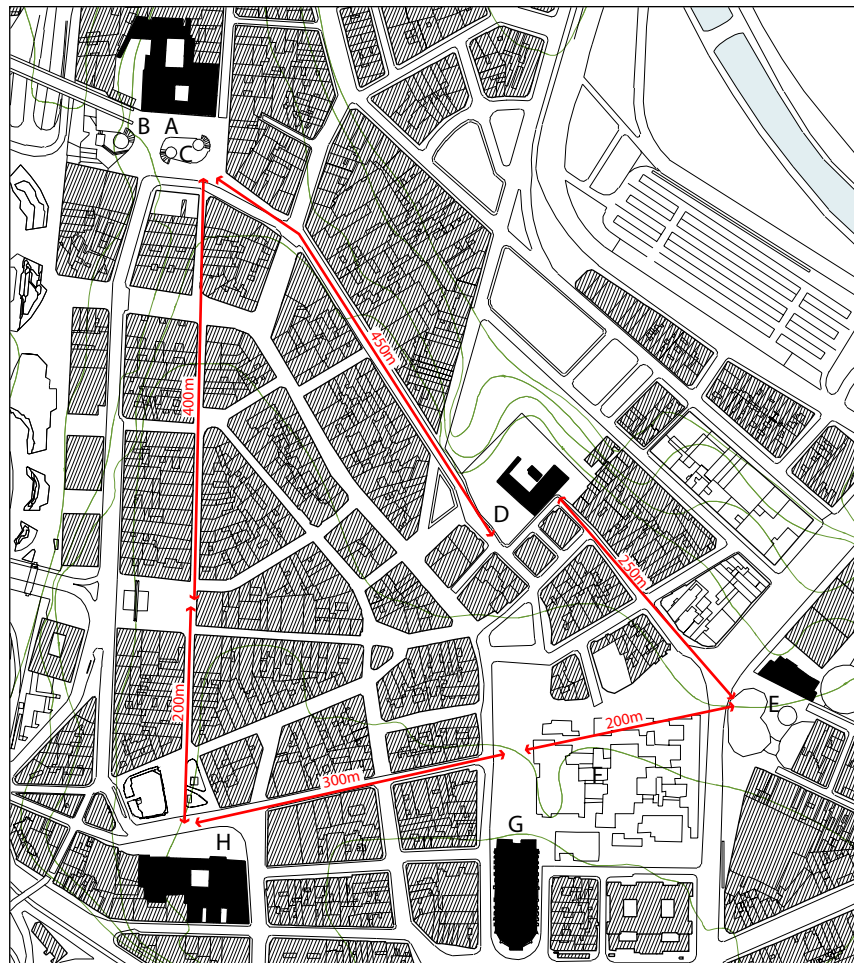
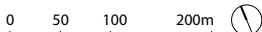
D. PÁTIO DO COLÉGIO SQUARE
Birthplace of São Paulo, where the Jesuits constructed their buildings facing the Tamandateí River

E. CARMO CHURCH
Remaining construction from the old Carmelites' monastery

F. SÉ PLAZA
Large plaza remodeled in the construction of the subway's main transfer station

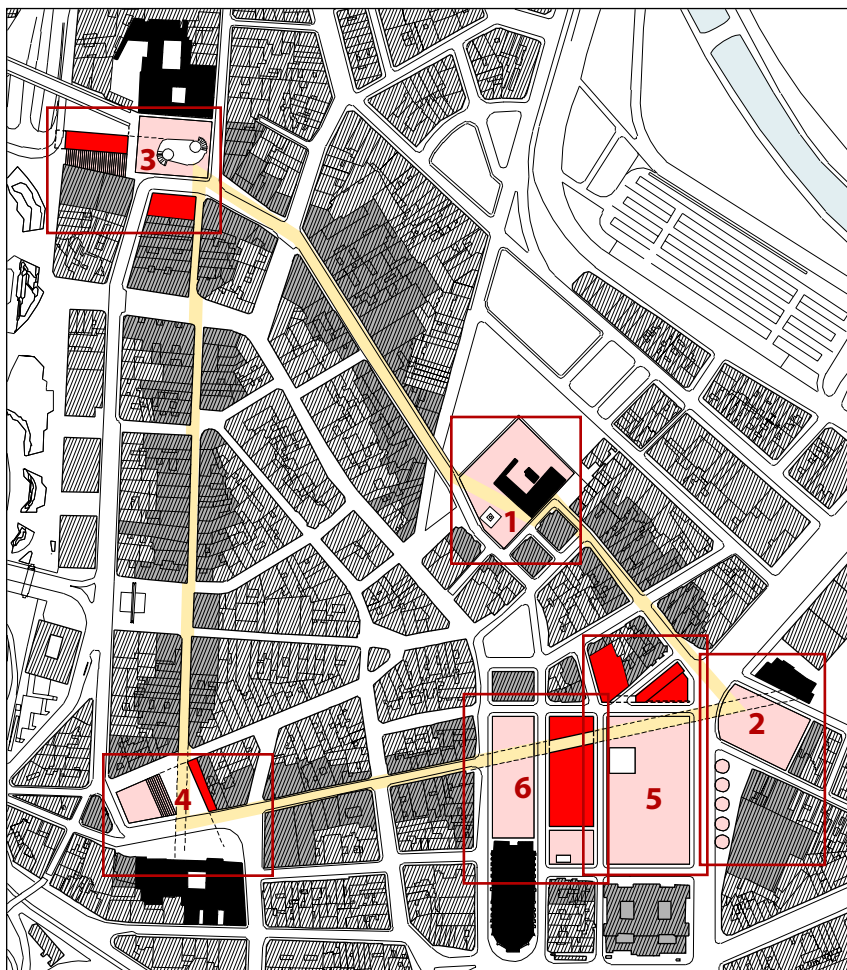
G. SÉ CATHEDRAL
Gothic cathedral constructed from 1913-54 to replace São Paulo's *Igreja Matriz* (Main Church)

H. SÃO FRANCISCO SQUARE
Old Franciscans monastery gave room to the Law School. Other two smaller chapels still functioning as such



Proposed Interventions #1 to 6

The proposed interventions attempt to restore the importance of the historical triangle back to life



System 02 | The Crossing

Existing Conditions

The east-west axis from Sé Plaza to Largo do Arouche Plaza, across the Viaduto do Chá bridge is one of the most prominent features of the downtown. However, many segments of this historical path are found in lamentable state of conservation and utilization.

SELECTED LANDMARKS

J. CAIXA BUILDING
Federal Bank building

K. TRIÂNGULO BUILDING
Niemeyer's commercial tower from 1952

L. PATRIARCA SQUARE
Recently renovated with canopy designed by Rocha

M. MATARAZZO BUILDING
Fascist style building by Italian architect M. Piacentini

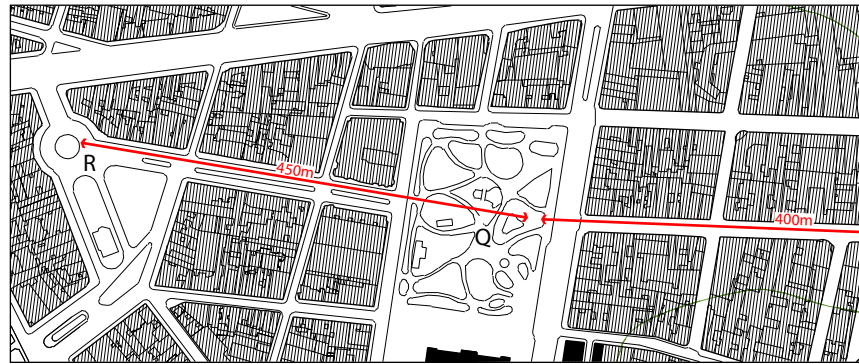
N. VIADUTO DO CHÁ
1938 replacement of the first bridge to connect the old downtown to the east side of São Paulo in 1892

O. LIGHT BUILDING
Recently renovated into a shopping mall

P. MUNICIPAL THEATER
Design inspired by the Opera of Paris

Q. REPÚBLICA PLAZA
English garden with overwhelmingly lush trees

R. AROUCHE PLAZA
Traditional bohemian plaza

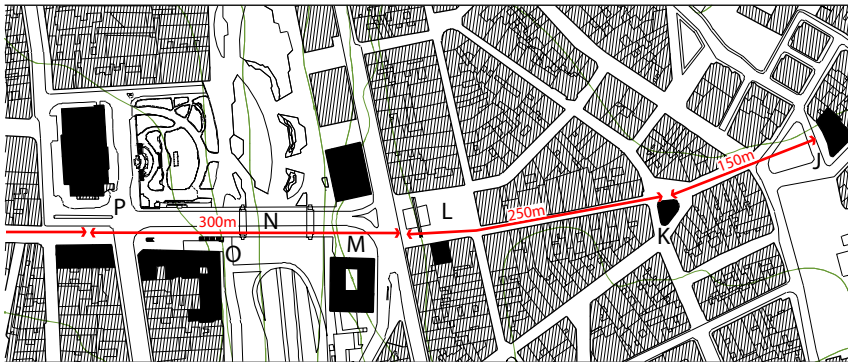


Proposed Interventions #7 to 12

This set of interventions will highlight some of the important buildings along this axis, or create entire new meanings to some existing but outshined urban spaces. These projects will bring the importance of "The Crossing" axis back to life.



0 50 100 200m



INTERVENTIONS

7. CAIXA SQUARE
 New building and remodeling of open space
 page 112

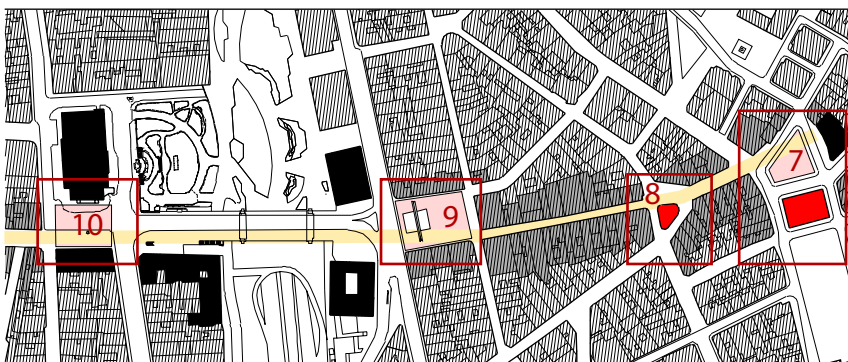
8. TRIÂNGULO BUILDING
 Renovation of existing building
 page 114

9. PATRIARCA SQUARE
 Maintenance of existing square
 page 115

10. THEATER SQUARE
 Remodelation of open space
 page 116

11. PAVILION AT REPÚBLICA PLAZA
 New building
 page 117

12. AROUCHE PLAZA
 Remodelation of existing plaza
 page 118



- PROPOSED BUILDINGS
- PROPOSED OPEN SPACES
- IMMEDIATE LOTS
- PERCEIVED SYSTEM

12 Interventions

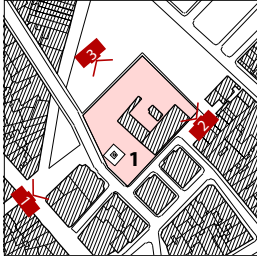
Rather than progress this work in the form of a linear text, I will now shift to the graphics that locate and describe the proposed interventions in the format of a catalog with auxiliary text reasoning each project.

On the next pages, I have placed a column on the left of each intervention as a quick reference with its attributes of size, ownership and program/description. In terms of size, the projects are categorized as small (minor renovation of open spaces), medium (major renovation of buildings, or complete recondition of plazas), and large (completely new buildings). Note that “large” is not exorbitantly large, but rather a quotidian dimension for architecture, simply a new building. This reinforces my concept that interventions have to be small in size, cost, and time of implementation, instead of scrapping and rebuilding entire areas.

As to “ownership,” I have simplified this attribute into three clear categories: public, private, and public-private partnership. Under “program,” I have made the decision to only give a vague suggestion of how the projects should be utilized, of what I envision as being the use that could most benefit the surroundings of the insertion. I believe that the program of buildings cannot be fixed, but rather, projects should allow for adaptation of usage along time and necessity.

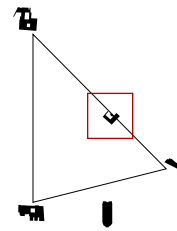
All the figures are by the author, unless otherwise noted.

Urban Acupuncture
for Downtown São Paulo | 12 Interventions



01

Pátio do Colégio Square



1. Renovation of Existing Square

Size: Small
 Ownership: Public
 Program/Description: Open space



figure 1.1 | **Street Vendors**
 Informal commerce hiding the Jesuits' Complex.



figure 1.2 | **Illegal Parking Lot**
 Cars from the adjacent governmental buildings.

figure 1.3 | **Maintenance of the Existing Square**
 Paving, excessive vegetation, lighting design, and signage are elements that deserve more attention at the Pátio do Colégio.

Current Condition

The importance of São Paulo's birthplace is currently outshined to the point that its historical terrace is now used as a parking lot serving adjacent government buildings. Dirtiness, overgrown vegetation and street vendors contribute to make the Jesuit's patio a dormant open space.

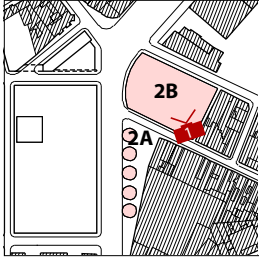
Proposed Intervention

The maintenance of the paving and of the green areas is needed. Car parking at the Pátio do Colégio Square should be prohibited. Removal of street vendors should be enforced. Lighting design and information plaques could valorize the historical complex.

Expected Results

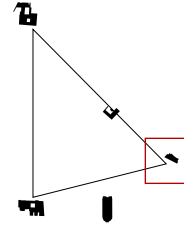
São Paulo has the somewhat rare privilege of having an identifiable birthplace, even after 452 years and growing to nearly 20 million inhabitants. Intervention #1 is to recognize this important location, turning it into a pristine but lively open space.





02

Carmo Square



2A. New Line of Trees

Size: Small
 Ownership: Public
 Program/Description: Open space

2B. Reconditioned Square

Size: Small
 Ownership: Public
 Program/Description: Open space

Current Condition

The Carmelite's Monastery no longer exists, only the Carmo Church. The adjacent open space is poorly arranged, with an odd grassy hill and bus stop that block the visibility from the main avenue to the church and adjacent buildings. The heavy pedestrian influx to the nearing governmental building is intense but unorganized, passing through urban "obstacles" rather than civic places.

Proposed Intervention

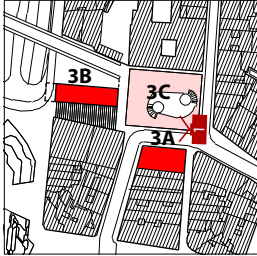
The removal of the grassy hill, the relocation of the bus stop, and the extension of dead-end streets would configure a completely new plaza. The creation of a line of trees along Anita Garibaldi Street would provide a clear edge to an otherwise wide and awkward sidewalk. The new trees have to be carefully located and specified, so that their trunks and canopies allow for the passage of fire trucks of the fire station immediately behind. The intention is to hide the massive structure of the fire station facing the Bevilacqua Plaza (intervention #5).

Expected Results

The creation of a "real square" will reference the important historical Carmelite's Church, and propitiate a pleasantly small gathering space for the users of surrounding buildings. Furthermore, the square could be designed with the possibility to accommodate cultural events.

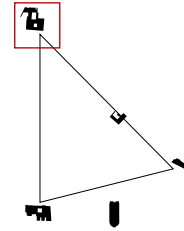
figure 2.1 |
Photomontage
 A renovated Carmo Square would revalorize the Carmelites' Church.





03

São Bento Square



3A. New 8-Story Building

Size: Large
Ownership: Private (on empty lot potentially controlled by the subway company)
Program/Description: 24/7 quotidian commerce at base, offices on upper floors

3B. New 4-Story Building

Size: Large
Ownership: Public-private partnership
Program/Description: Space for institutional events and exhibitions

3C. Renovated Plaza

Size: Small
Ownership: Public
Program/Description: Open space

Current Condition

São Bento Square is a busy and confusing open space, with heavy pedestrian flux due to the underground subway station, the *Viaduto Santa Ifigênia* bridge, and the awkward sloped access to the Anhangabaú Valley.

Proposed Intervention

A new 8-story office building on a vacant lot on the south side of the square, and a long 4-story institutional building on the west side would properly shape São Bento Square. The ground floor paving and the sunken plaza should be renovated in order to improve the accessibility across the square. Building 3B should be designed to provide a safe and clear stairway and an interior public elevator, both connecting the renovated open space to the Anhangabaú Valley.

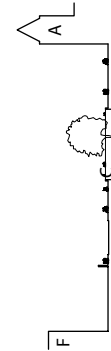
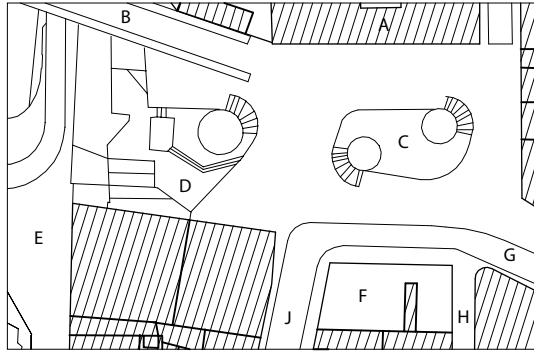
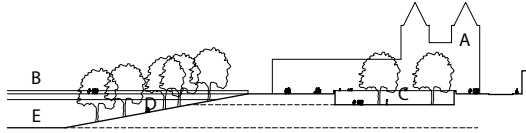
Expected Results

The new buildings will offer clear and lively edges to the open space, highlighting the larger and more important Benedicts' building. São Bento Square will properly serve as an articulator of fluxes, but more so, as an important venue that recognizes its historical prominence. The sunken plaza condition can give opportunity for events such as concerts and theatrical acts to occur.

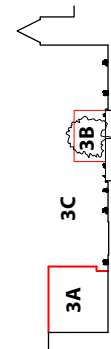
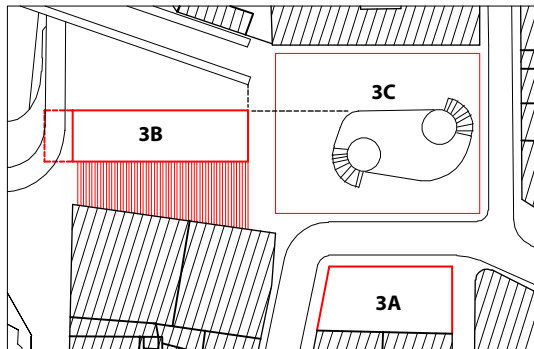
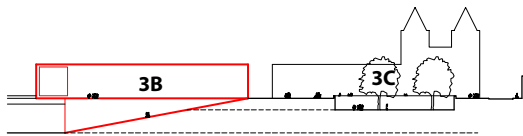
figure 3.1 |
Photomontage
 Two new buildings would configure a renovated São Bento Square, with legible and lively edges. Montage by the author on photograph by Kathia Shieh, 2006.



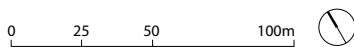
- A. SÃO BENTO MONASTERY
- B. VIADUTO SANTA IFIGÊNIA (PEDESTRIAN BRIDGE)
- C. SUNKEN PLAZA (RETAIL AND ACCESS TO SUBWAY)
- D. SLOPED PLAZA CONNECTING TO ANHANGABAU VALLEY AND SUBWAY
- E. ANHANGABAÚ VALLEY
- F. VACANT LOT
- G. QUINZE DE NOVEMBRO STREET
- H. SÃO BENTO STREET
- J. LIBERO BADARÓ STREET

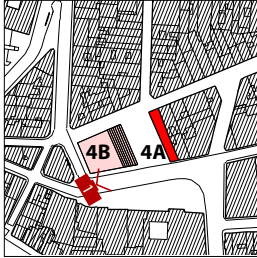


EXISTING CONDITION



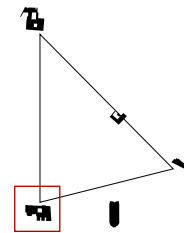
PROPOSED INTERVENTION #3





04

São Francisco Square



4A. New 8-Story Building

Size: Large
Ownership: Private (site to sold by the city), strict public regulations of design
Program/Description: 24/7 quotidian commerce at base, apartments on upper floors

4B. Reconditioned Plaza

Size: Small
Ownership: Public
Program/Description: Open space

Current Condition

São Francisco Square is actively anchored by the traditional Law School of the University of São Paulo, where the old Franciscans' monastery used to be located. However, users and visitors of the school and of the two smaller churches of São Francisco have no opportunity to wander around and to contemplate this historically important urban space.

Proposed Intervention

The existing parking lot serving the adjacent Saldanha Marinho Building (governmental facility) should be relocated and give room to a much more important use: public square. The gentle slope could be utilized to create a small arena that can receive public for programmed events. The proposed 8-story building will provide a lively eastern face to the new square, veneering the blank wall of the existing building with apartments on the upper floors and retail at the base.

Expected Results

The pedestrian flux coming from the north (the direction of the Benedict's monastery), could be "released" onto a proper square that highlights the invaluable composition of the three historical buildings of São Francisco. This legible square will positively affect the surrounding degraded buildings (such as the important Álvares Penteado School of Commerce).

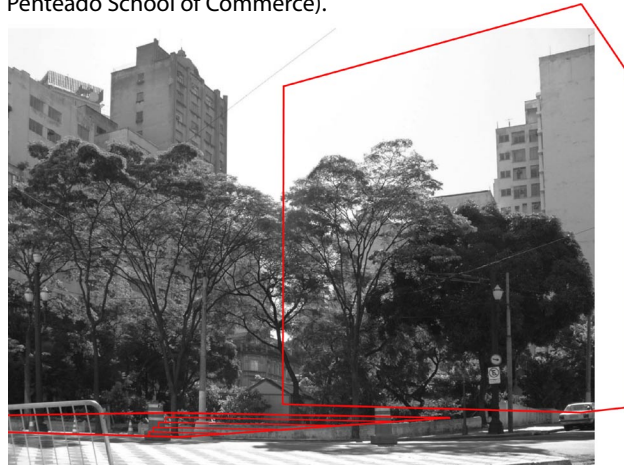


figure 4.1 |
Photomontage
 Proposed residential building and square with arena. Montage by the author on photograph by Kathia Shieh, 2006.

A. SÃO FRANCISCO CHURCH
OF THE THIRD ORDER

B. SÃO FRANCISCO CHURCH

C. LAW SCHOOL
UNIVERSITY OF SÃO PAULO

D. ÁLVARES PENTEADO
SCHOOL OF COMMERCE

E. SALDANHA MARINHO
GOVERNMENTAL BUILDING

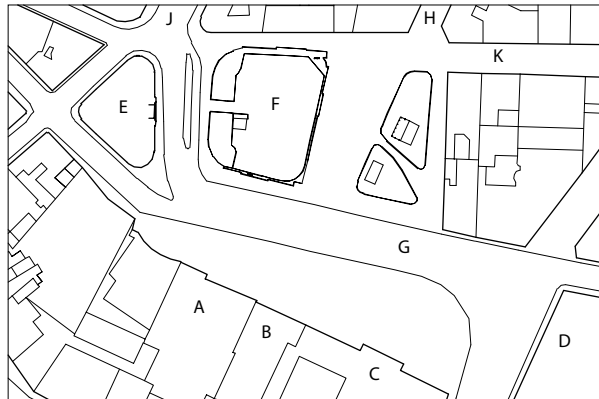
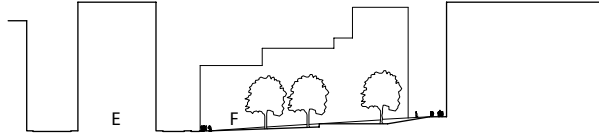
F. PARKING LOT

G. BENJAMIN CONSTANT STREET

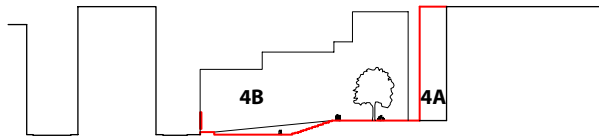
H. SÃO BENTO STREET

J. LIBERO BADARÓ STREET

K. JOSÉ BONIFÁCIO STREET



EXISTING CONDITION



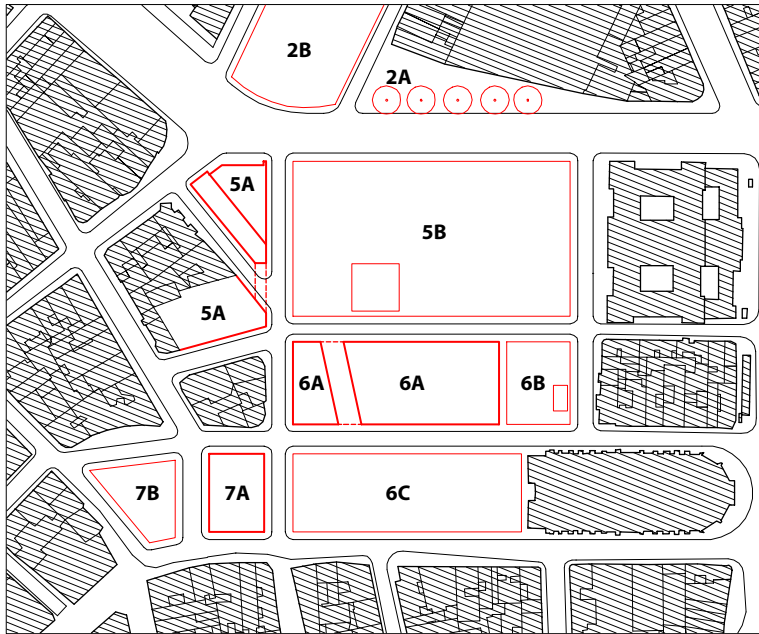
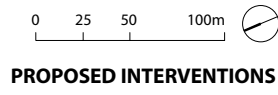
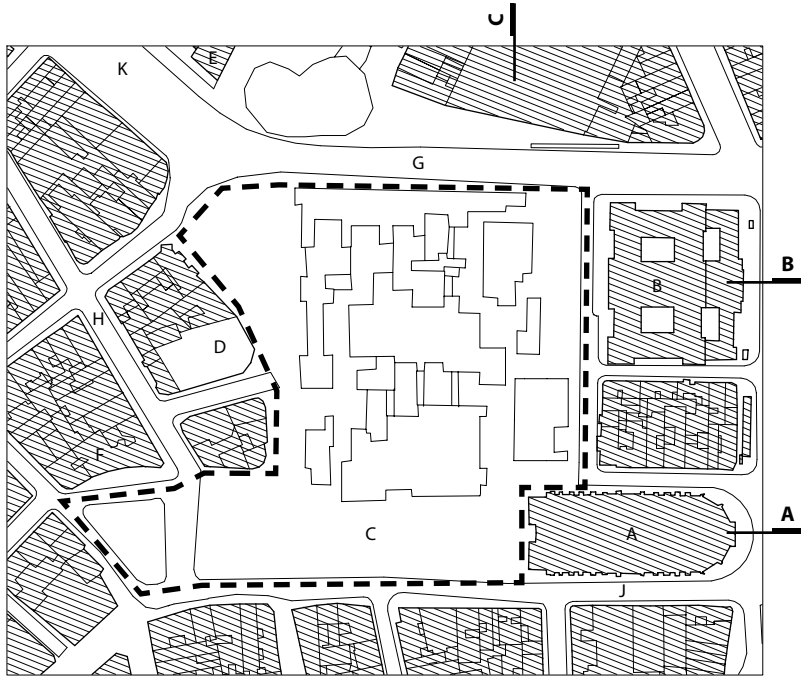
PROPOSED INTERVENTION #4

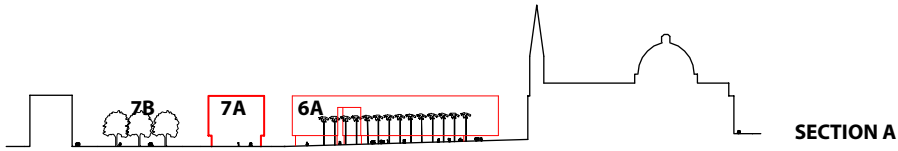


**Interventions # 5, 6 and 7:
A New Sé Plaza**

- A. SÉ METROPOLITAN CATHEDRAL
- B. JUSTICE PALACE
- C. ZERO MARK FOR SÃO PAULO
- D. VACANT LOT
- E. CARMO CHURCH
- F. CAIXA ECONÔMICA BUILDING
- G. ANITA GARIBALDI STREET
- H. WENCESLAU BRAS STREET
- J. PRACA DA SÉ STREET
- K. RANGEL PESTANA AVENUE

EXISTING CONDITION

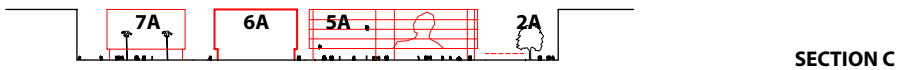




SECTION A



SECTION B



SECTION C

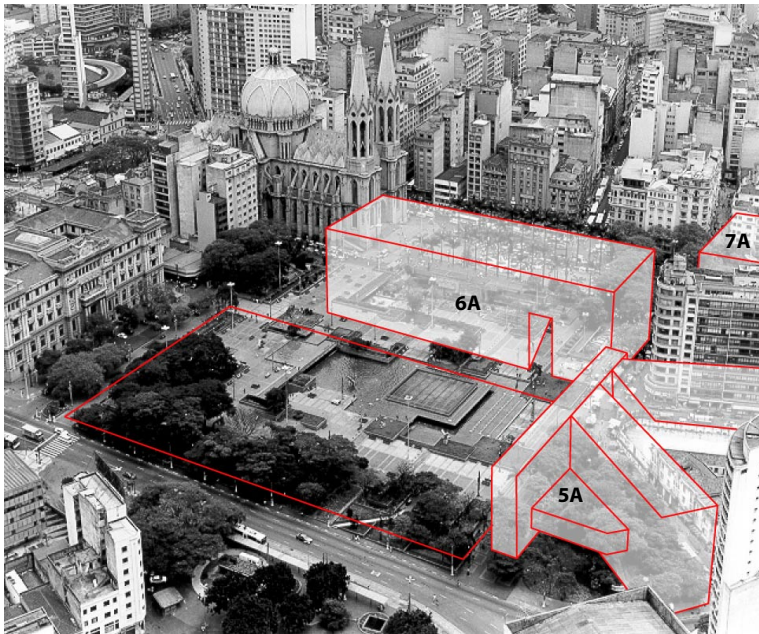
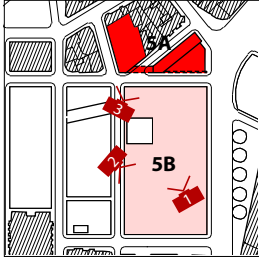
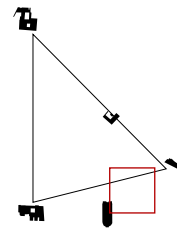


figure 5.0 |
Photomontage
 Interventions #5, 6 and 7 breaking
 down the scale of the current Sé Plaza.
 Montage by the author on photograph
 by Nelson Kon, 1996 conceded to the
 author by *Viva o Centro* Association.



05

Bevilacqua Plaza



5A. New 4-story Building

Size: Large
 Ownership: Public
 Program/Description: Cultural facility

5B. Renovated Plaza

Size: Medium
 Ownership: Public
 Program/Description: Open space

Current Condition

Although the name “Bevilacqua Plaza” is still used, this public space does not formally exist since 1978 when it was incorporated to Sé Plaza, as mentioned in page 35. The integrated plaza was designed to accommodate a massive number of public for special events (it was used as such for pro-democracy protests in the early 1980s) but currently suffers from its exaggerated dimensions and fragmented design with raised planters that encourage the establishment of a homeless population.

Proposed Intervention

The existing planters and reflecting pool should be completely removed. The skylight that illuminates the underground station would be made flush to the ground (using glazing and metal grate), and inversely from day-time, would emanate light from underneath after dusk. The plaza’s gentle slope down to the north should reinforce the sense of directionality, especially after anchored by the new cultural building, whose main façade is to function as a display showcasing main events.

Expected Results

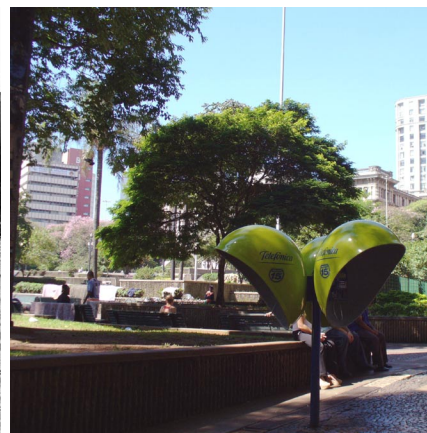
This is to become a major venue for metropolitan congregations. The simple landscape design, in contrast to the confusing one of today, will provide legibility and consequently safety to this civic space so vital for São Paulo.

figure 5.1 |
Sé Plaza

The reflecting pool built in the 1970s being used by homeless people. Photograph from 1984 by U. Dettmar, conceded to the author by *Viva o Centro* Association.

figure 5.2 |
Sé Plaza

The lack of urban legibility due to raised planters encourage the establishment of a homeless population. Photograph by Kathia Shieh, 2006.



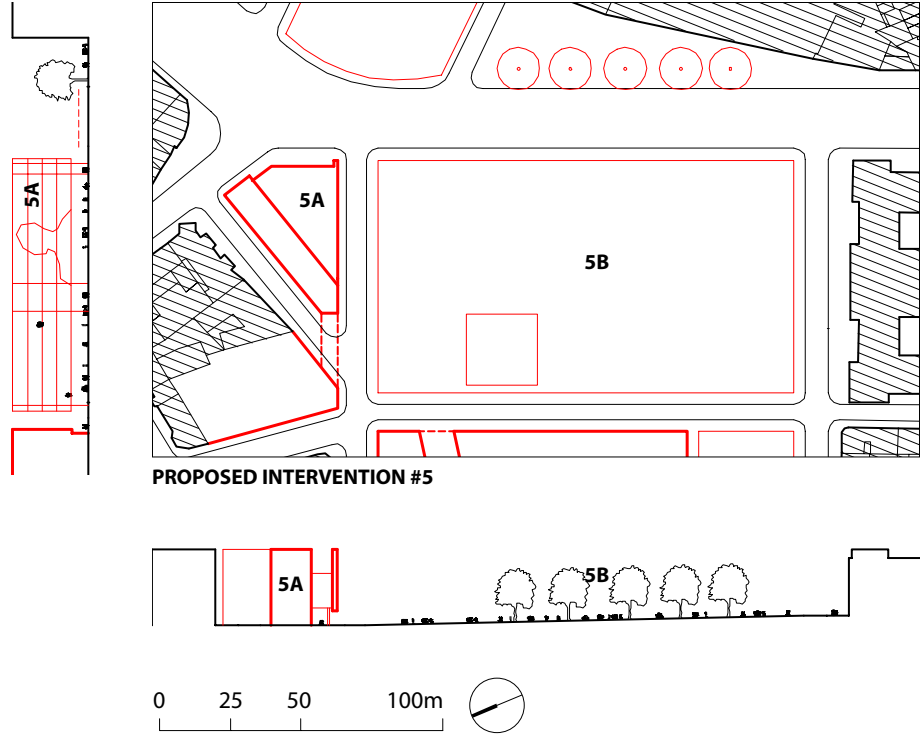
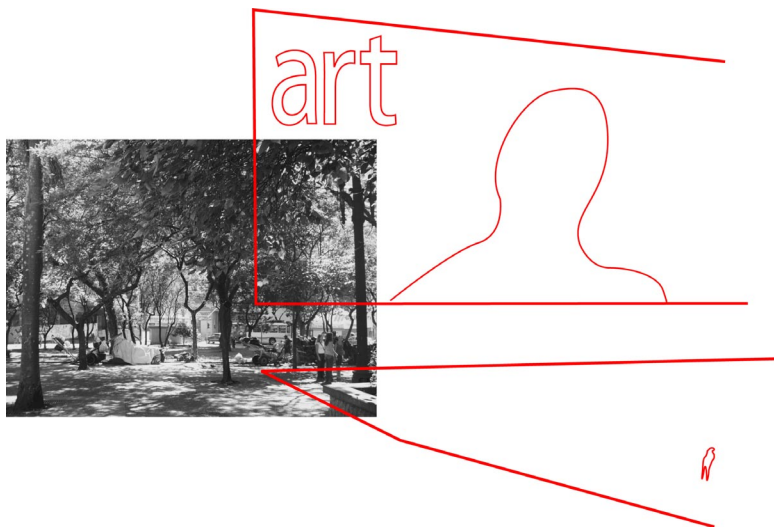


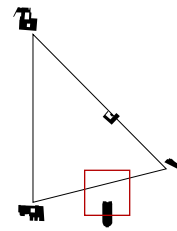
figure 5.3 |
Photomontage
 A cultural facility will serve as
 backdrop for the new Bevilacqua
 Plaza, a space for congregations of
 metropolitan scale. Montage by the
 author on photograph by Kathia
 Shieh, 2006.





06

Sé Plaza



6A. New 8-story Building

Size: Large
Ownership: Private (site to be sold by the city), strict public regulations of design
Program/Description: 24/7 quotidian commerce at the base, hotel, offices, and institutional on the upper floors

6B. Renovated Subway Entrance

Size: Small
Ownership: Public
Program/Description: Open space

6C. Renovated Plaza

Size: Small
Ownership: Public
Program/Description: Open space

Current Condition

Among the many fragments of the large open space now called Sé Plaza, the portion in front of the Main Cathedral is probably the most legible one. However, the convoluted surroundings, and the many street vendors and performers that daily occupy the public space create a sense of disorder and insecurity that heavily affect the “mark zero” of São Paulo.

Proposed Intervention

A long 8-story building would provide a legible edge on the east side of the plaza, directing views and fluxes to the cathedral. The ground floor of the new building should accommodate lively commercial program, and has to provide view and access for the pedestrian flux coming from the west in direction to the Bevilacqua Plaza and Carmo Square (interventions # 5 and #2). The upper floors would accommodate hotel rooms, offices and cultural institutions. Minor renovations and maintenance of landscape features should be done to the formalized open spaces (6B and 6C).

Expected Results

Sé Plaza is arguably the most symbolic public space in São Paulo, and has to be perceived as such. The new building is instrumental to divide the large existing open space into two legible plazas (Sé and Bevilacqua), and to reinforce the sense of procession upwards to the gothic structure, already incipient by the line of palm trees.

figure 6.1 |

Original Sé Plaza

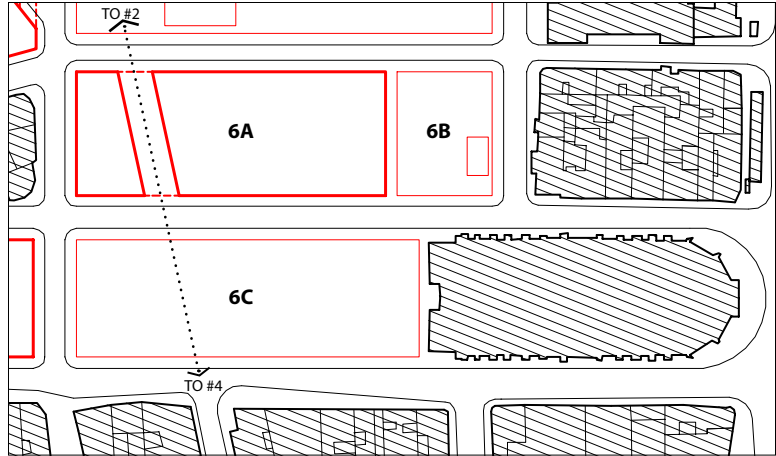
During construction of the gothic cathedral. Photograph by Hildergard Rosenthal, 1940 conceded to the author by *Viva o Centro* Association.

figure 6.2 |

Implosion of the Mendes Caldeira Building

Photograph from *Folha Imagem* “45 Fatos Históricos Pitorescos” *Revista da Folha*, January 25, 2004, no. 605, 18.





PROPOSED INTERVENTION #6

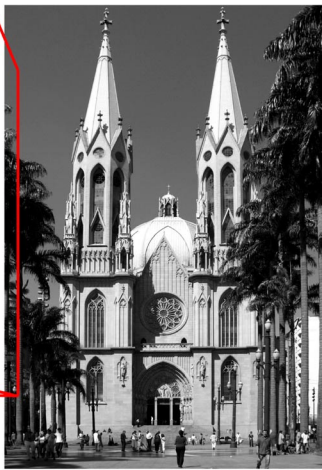
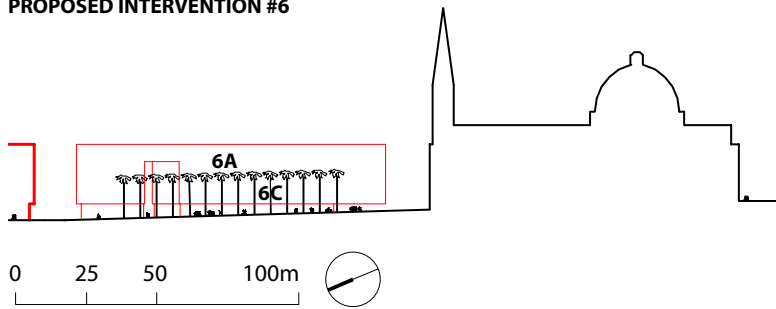
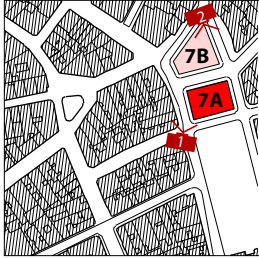


figure 6.3 |

Photomontage

The new building will reinforce the sense of procession upwards to the gothic cathedral. Montage by the author on photograph by Kathia Shieh, 2006.



07

Caixa Square



7A. New 8-story Building

Size: Large
Ownership: Private (on site to be sold by the city) with strict regulations of design
Program/Description: 24/7 quotidian commerce at the base, and offices and institutional on the upper floors

7B. Reconditioned Square

Size: Small
Ownership: Public
Program/Description: Open space

Current Condition

The northern portion of Sé Plaza is nothing but an unqualified residual open space. The many dense trees and the heavy traffic of cars and pedestrians create a sense of insecurity that discourage the utilization of this public space.

Proposed Intervention

A new square, distinct from the larger Sé Plaza, should be named “Caixa Square” as a reference to the important federal bank building (Caixa Econômica Federal) on the east side of the open space. The formalization of this pleasantly small square would be possible through the construction of a new building (7A). This 8-story tower has to be carefully designed, “dialoguing” with the Main Cathedral on the south.

Expected Results

This important “missing” square will serve as a lively end-piece to the here celebrated “Crossing” axis. Moreover, its formalized legibility will pivot the flux to other important adjacent open spaces: Sé Plaza (south), Pátio do Colégio Square (north), and Bevilacqua Plaza (east).

figure 7.1 |
Sé Plaza

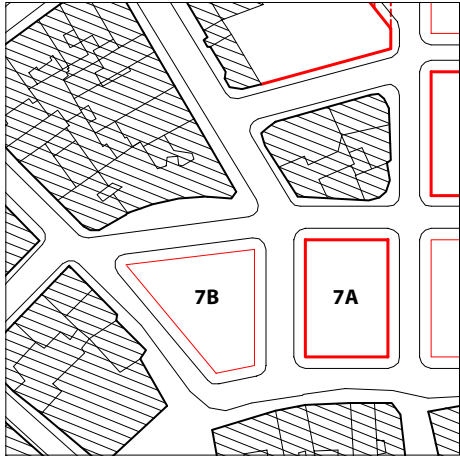
Currently, the proposed square is nothing but an amorphous residual space from the larger Sé Plaza. Photograph by Kathia Shieh, 2006.

figure 7.2 |

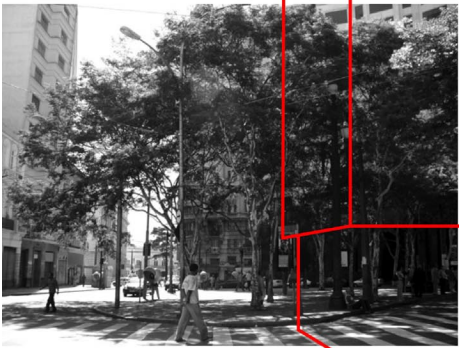
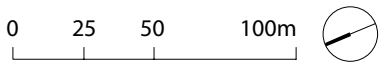
Photomontage

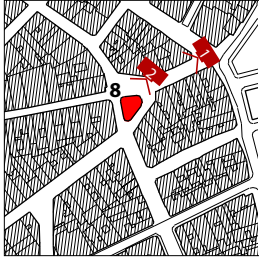
A new building would divide and help in the legibility of urban spaces. Montage by the author on photograph by Kathia Shieh, 2006.





PROPOSED INTERVENTION #7





08

Triângulo Building



8. Building Renovation

Size: Medium
Ownership: Private
Program/Description: Office building with 24/7 retail at the base

Current Condition

Oscar Niemeyer's 1954 glass tower is one of the most prominent structures in the downtown, given its tall height and unusual location in the intersection of many streets. Unfortunately, the tower is severely degraded with only about 60% of its office space being currently occupied, and with the ground floor completely masked by obnoxious commercial signage of the cheap stores established in the building.

Proposed Intervention

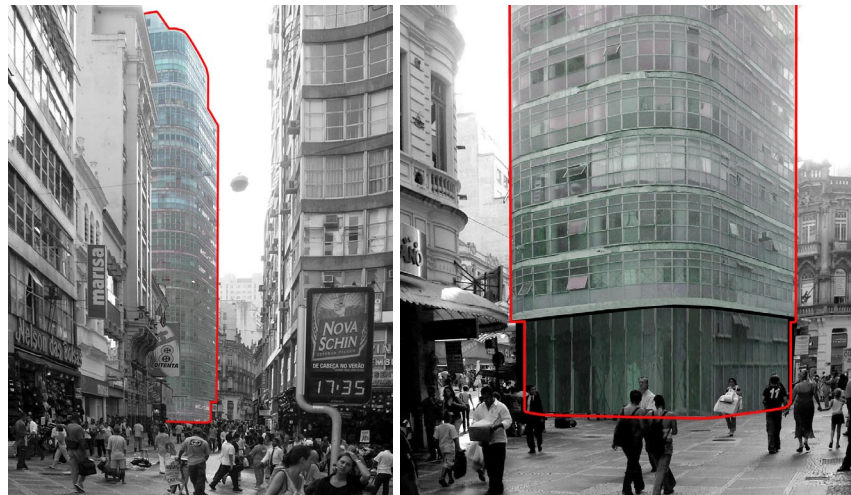
A major renovation of such an important building should be supported by the public sector through tax incentives to the property owners. Special attention should be given to the delicate curtain wall system, which could be updated to more efficient components than those of fifty years ago. The ground floor should also be restored and rented out to selective commercial usage, especially those that stay open for long hours (cafés, bookstores, grocery stores, and so on).

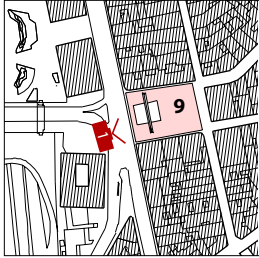
Expected Results

The renovation of Niemeyer's prominent building will serve as an emblem of how much the public sector cares about the downtown inventory of private landmarks. This modernized glass tower will serve as a beacon of light for five different axes.

figure 8.1 |
Photomontage
 The visual prominence of the Triângulo Building.

figure 8.2 |
Photomontage
 Niemeyer's 1954 tower could look new with the renovation of its curtain wall system.





09

Patriarca Square



9. Maintenance of Square

Size: Small
Ownership: Public
Program/Description: Open Space

Current Condition

Paulo Mendes da Rocha's work at the Patriarca Square is a true emblem of renovation in the downtown. Since 2002, when the construction of the canopy and the restoration of the paving mosaic were concluded, surrounding buildings have been successfully renovated and commercialized.

Proposed Intervention

Typical maintenance of public spaces should be observed regularly. As of now, the white canopy needs to be repainted, and the stone pavement washed.

Expected Results

The positive effects that Rocha's design has promoted to the surroundings should endure, especially with the integration of this existing intervention into a legible system of urban renovation.

figure 9.1 |

Photomontage

The Patriarca Square needs maintenance in order to still be perceived as a new and positive intervention.





10A. Change of Paving

Size: Small
Ownership: Public
Program/Description: Open space

10B. Spire

Size: Small
Ownership: Public
Program/Description: Monument

Current Condition

The open space in front of the festive Municipal Theater is a convoluted one, with provisional newsstands, street vendors, commercial signage, and an unorganized influx of pedestrians and automobiles.

Proposed Intervention

The road segment immediately in front of the theater’s stairway entrance could have its pavement raised to match to the sidewalk elevation. A distinct paving type could reinforce the sense of a square in front of such an important building. Furthermore, a tall monument strategically located at the axis of Barão de Itapetininga Street (to the west) could be the object of a design competition (along the lines of the recently erected Dublin’s Spire, with 120m of height).

Expected Results

A new legible square will celebrate the beloved Municipal Theater. The raised pavement with gentle ramps at both ends of the road will limit the flux and speed of vehicular traffic, mostly of attendees of the theater events. The insertion of a vertical monument will serve as reference from afar, poetically counter-balancing the horizontality of Rocha’s canopy on the other side of the bridge.



figure 10.1 | **Photomontage**
 A spire and differentiated paving could formalize a square in celebration to the Municipal Theater.



11. New Pavilion

Size: Medium
Ownership: Public-private partnership
Program/Description: Pavilion for exhibitions and events

Current Condition

República Plaza is a dark and labyrinthine open space, landscaped in the molds of an English garden but with dense trees. This lush vegetation blocks the visual continuity from Barão do Itapetininga Street (on the east of the plaza) to Vieira de Carvalho Street (on the west), and offers conditions for the homeless and criminals to loiter around.

Proposed Intervention

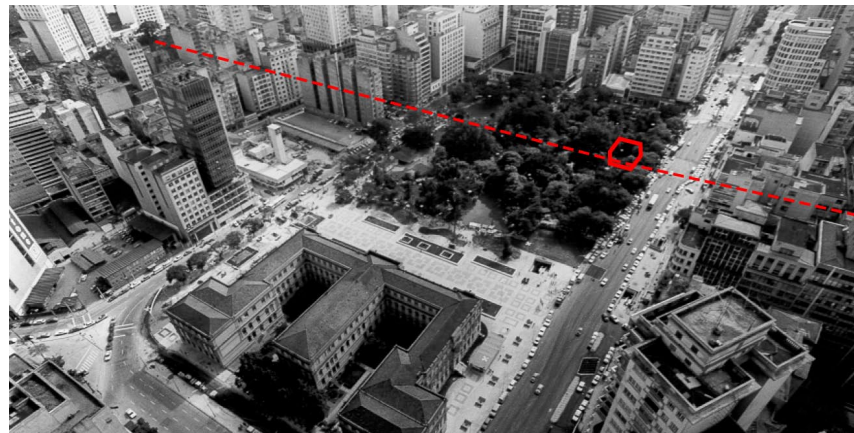
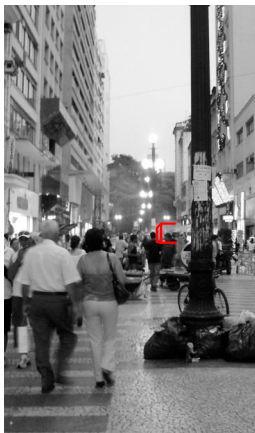
The intervention would be a new pavilion for exhibitions and events, strategically placed at the deflection point of the east-west axis at the end of the Barão de Itapetininga Street. This pavilion could be a temporary structure re-erected every year or two, promoting different designers, or a permanent one, depending on the type of engagement between the public and private sectors for the maintenance of the project.

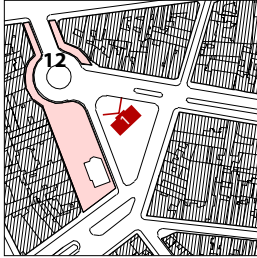
Expected Results

The importance of this pavilion is to radiate light to the surroundings all day long, especially at this dark spot of the plaza. It will serve as a focal point to the pedestrians coming from the east along the convoluted corridor that now characterizes the Barão de Itapetininga Street. The lively pavilion will be the visible link between the two streets of our axis.

figure 11.1 |
Photomontage
 View from Barão de Itapetininga Street.

figure 11.2 |
Photomontage
 Aerial View showing desired visual connection.





12

Arouche Plaza



12. Re-geometrization of curb line

Size: Small
 Ownership: Public
 Program/Description: Sidewalk tables for adjacent restaurants and bars

Current Condition

Rua Vieira de Carvalho, the boulevard that corresponds to the last segment of our highlighted east-west axis, in conjunction to the Arouche Plaza, has once been considered the most elegant venue of the downtown. Along the boulevard, the many traditional restaurants at the ground floor of once sophisticated apartment buildings, nowadays struggle to keep their businesses open.

Proposed Intervention

The small volume of automobile traffic in the area today gives the opportunity to re-geometrize the curb line of Arouche Plaza. The intention is to enlarge the width of the sidewalk around the turnabout, and to connect the southwestern sidewalk with the adjacent wide median, creating an appropriate place for restaurant/bar outdoor seating.

Expected Results

Arouche Plaza, symmetrically to Caixa Square (intervention #7), is to serve as an end-piece to the “Crossing” axis. Arouche Plaza should be treated as a focal point, as an attractor of fluxes that can revitalize the adjacent Vieira de Carvalho Boulevard. Transforming this open space into an active gathering spot, with restaurants and bars orderly utilizing the open space with sidewalk tables, will attract *paulistas* and tourists to this traditionally bohemian area.

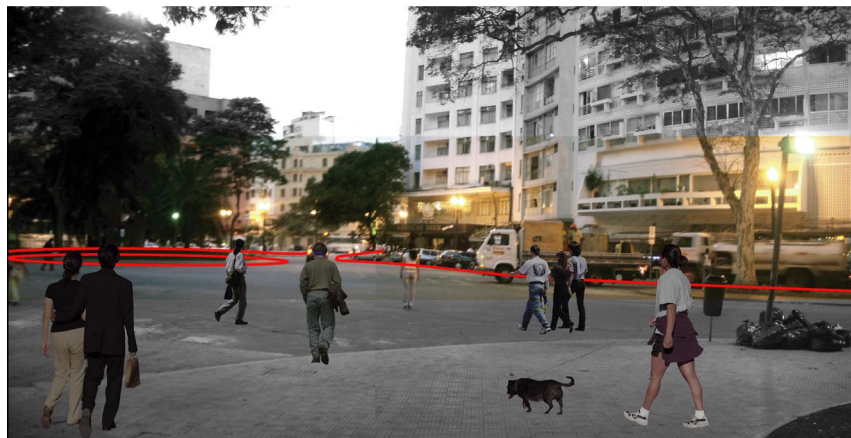
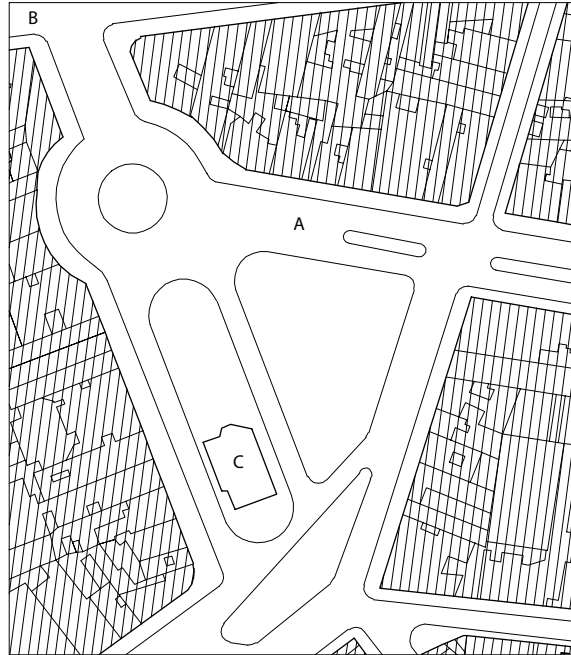
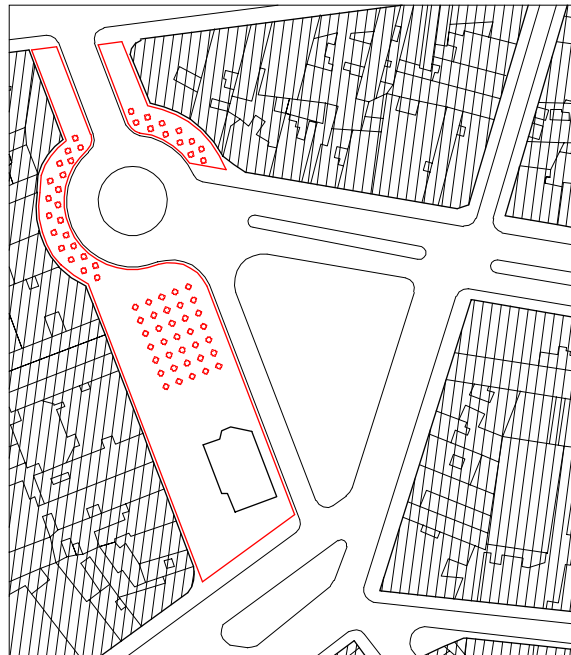


figure 12.1 |
Photomontage
 Renovated Arouche Plaza should be an attraction for the *paulistas* and tourists.

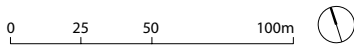
- A. RUA VIEIRA DE CARVALHO
BOULEVARD
- B. SÃO FRANCISCO AVENUE
- C. FLOWER STAND



**EXISTING
CONDITION**



**PROPOSED
INTERVENTION #12**



Conclusion

History shows that downtown São Paulo and its degradation process are fundamentally linked to much larger metropolitan issues. From the outset, the formation of that metropolis has been based on the accommodation of low-income people in the peripheries, and on their daily transportation to the center by precarious bus lines disembarking exactly at the most delicate urban fabric of São Paulo: the historical downtown. More recently, in addition to the harmful payback of this once convenient duet,⁶⁰ the city now suffers from alarming rates of criminality, misery, and unemployment among many other problems. A design proposition as the one presented here, can do little to such extensive social problems. In fact, I believe that factors aside from design, such as the development of major transportation systems and the implementation of urban policies – both mentioned but not studied in this work – could play a striking role in tackling some of these social issues brought up. Yet again, the complete rehabilitation of Downtown São Paulo can only be accomplished by acting at an overall metropolitan scale.

60. "convenient" to the government who did not have to worry about addressing the housing demand issue, with the self-construction of *favelas* (see page 34).

However, by limiting the scope and the territory of the thesis – the study of Urban Acupuncture in the downtown – I believe that this work is able to transmit two important sets of messages. The first, addressed to the city of São Paulo, is demystifying that complex urban problems should wait to be tackled by ONE large and miraculous solution. That day is far from falling into the government’s lap. I believe that for downtown São Paulo a much more rational solution would be the insertion of small and pragmatic urban projects, which can produce disproportionately large benefits when done in a certain way. This “certain way” is what I hoped to be the second set of message of this work – a methodological contribution to the trendy but vague term “Urban Acupuncture” – addressed to designers who practice in consolidated and therefore delicate city contexts elsewhere.

To São Paulo

The suggestion to utilize small-scale interventions could be effortlessly reasoned by a couple of circumstances that we find in São Paulo: (1) the consolidated, convoluted and fragile context of the downtown allows for (and requires no more than) only little but powerful adjustments that (2) suit the operationally weak public sector of that city. But this work finds that there are a few other characteristics that make Urban Acupuncture seem a fitting strategy for São Paulo.

The critical belief of this method is that new interventions when placed in a series would be perceived as a system that can have a great catalytic effect. The idea is that a minimal but strategic effort from the public sector would be able to incite the many stakeholders in downtown to pursue the renovation of the entire area. I understand that this may sound somewhat mystical, however this strategy has proved considerably successful in

Barcelona and in many other cities. What I argue is that, even if the catalytic effect does not work as completely as expected, each intervention by itself will most definitely have a positive impact on the immediate surroundings. These isolated successes are far easier to grasp, more intuitive to believe. The maintenance and the renewal of open spaces that attend residents as here proposed, are quotidian duties of a functioning public sector in any other city. This is a moral obligation of São Paulo's government, the minimum that the city should be doing in any case. But I urge the city to do it systematically.

Not only would the city have little to lose, but by the nature of tackling urban problems piecemeal, I argue that Urban Acupuncture is a heuristic process. Continuously aiming for the major catalytic effect, the downtown should be seen as a test bed, where each intervention offers learning to the next one, allowing for a multitude of adjustments (size, program, design and so on) that augment the chances of success of the overall rehabilitation. The twelve interventions that I proposed should be seen as an initial suggestion. Although I invoke the notion of precision in my concept, my design proposition is far from being a thoroughly detailed set. The procedure of observing, learning, and making adjustments in urban projects should occur on a nearly daily basis in as dynamic a city as São Paulo.

Furthermore, Urban Acupuncture is an open-ended process. As I proposed, the historical core would be the initial area of implementation, but after the strategy is assimilated, it could be extended over other parts of the metropolis. Ideally, urban renovation would become a self-replicating idea. The incited private sector would positively affect the stakeholders of a subsequent territory, and so on. This would represent a seamless

development of the entire São Paulo, something that more or less occurs in good cities naturally. Moreover, in a similar way to what happened to Barcelona after addressing the neighborhood-scale problems, this positive response of the private sector in creating a functioning city would allow São Paulo's public sector to engage itself in much larger endeavors.

To Urban Designers Elsewhere

Perhaps the best definition of "Urban Acupuncture" is contained in the term itself. The imagery that the expression brings to designers is somehow so vivid that it requires no further explanation. To make a formal definition of the term is to risk ruining the positive leeway that every abstraction naturally contains. Each urban designer, acting in different settings, should be able to build upon the vague (but accurate) notion of Urban Acupuncture. Here I just want to briefly post-rationalize upon the design process that I ended up utilizing for São Paulo. My hope is that the design approach used here can contribute somehow to urban designers facing similar problems elsewhere.

Perhaps the most outstanding observation is about the shift of scale for what I (and an entire generation of urban designers, as suggested by Solà-Morales) consider to be the heroic act of architecture. For the modernists (I take the liberty to generalize here), the heroic act would be to scrap things away, to consider old things to be unusable, to start fresh. I will not make any judgmental value about this approach, but rather consider it a circumstantial response. The circumstances today require a different type of heroic act. They require the urban designer to move into a chaotic setting where no one has any indication of how to tackle so many problems and to perform a magical act.

The many consolidated and degrading urban conditions of today require from the designer the ability to, within each individual project, remove some frictions, unlock the hidden possibilities, and reveal an inner beauty of the urban context that no one could see before.

In downtown São Paulo, I had the benefit of being able to nourish the design approach from an invisible dimension: the combination of the city's history over an imposing geography. I would not be surprised if urban designers elsewhere find convincing design references from similar attributes when elaborating their own Urban Acupuncture strategy.

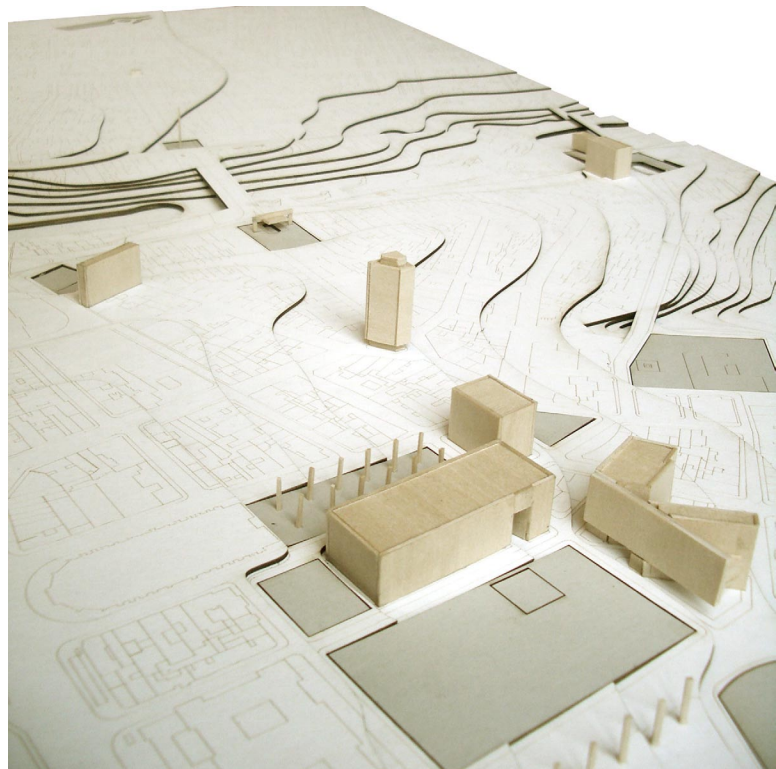


figure C.0 |
Site Model
Downtown São Paulo and the twelve
proposed interventions. Model and
photograph looking northwest by the
author, 2006.

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