

**Architectures of the People:
Material and Cultural Politics of Housing in São Paulo, 1950-1995**

by

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All archaeology of matter is an archaeology of humanity. What this clay hides and shows is the passage of a being through time and space, the marks left by fingers, the scratches left by fingernails, the ashes and the charred logs of burned-out bonfires, our bones and those of others, the endlessly bifurcating paths disappearing off into the distance and merging with each other.

José Saramago, *The cave*, p. 66.

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From the moment I began to cultivate the initial ideas for this dissertation on the house as a political and cultural assemblage, I have lived in at least eleven houses in two different cities. These cities could not be more dissimilar: the São Paulo of movement, concrete, traffic, the continuous sensorial excitement that inspires (if it does not drive you mad), and scandalous inequality and the Ann Arbor of cafés and libraries, long and cold winters, running tracks by the river, and a soothing yet sometimes annoying and artificial calm (do not forget Detroit is around the corner). My experience of these two cities, colored by visits to Jaú and Rio de Janeiro whenever possible, are the background and the material of this dissertation.

This experience also marks a crucial moment in my life. During these past six years, I resolutely endeavored to challenge the widespread notion that a doctoral program is a hiatus in one's trajectory, a long immersion in work, a pause from the normalcy of life that should, one hopes, lead to a successful career in academia. I am glad to think that I attempted to live an intense and rewarding life while I navigated these cities, houses, bureaucracies, deadlines, and requirements of all sorts and while I traveled back and forth with my suitcases full of books—and they are heavy!

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My grandma Izaura passed away when I was finishing my third year in the program. She had a prodigious memory and liked to tell stories. A little after I went to school for the first time, as she noticed that I enjoyed that world of books and classrooms, Vó Izaura told me she had learned to read and write at the old house on the farm where she grew up, leafing through her father's timeworn dictionary after her older brother had taught her the ABCs. She

told me that for many years she dreamed of stepping inside a classroom, of sitting at a school desk, only to fulfil this dream when my mother—her oldest daughter—began her studies at the age of seven. I have always thought about my grandma visiting a humble rural school in Jaú for the first time. Sometimes, when I enter a new classroom, a library, or a university or even in those very rare moments as a student or as a teacher when a certain lecture or debate fills the room with the excitement of a jazz concert, I think of this enchantment that Vó Izaura must have felt then. It was a spell that she unpretentiously tried to narrate to this grandson, who seemed to appreciate classrooms and books and who, in contrast to my parents and grandparents, would attend several classrooms throughout life—some closer to that rural school in Jaú, and some in faraway lands. It was also grandma Izaura and grandpa Tide—who is still with us and keeps delighting us with his calm presence—whom I had in mind during my first snowstorm in Ann Arbor, in the winter of 2009. I will be thinking of them when I defend this dissertation on a cold day in December.

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LIST OF ABBREVIATIONS

AI-5	Ato Institucional n. 5 (Institutional Act no. 5)
ALN	Ação Libertadora Nacional (National Liberation Action)
ARENA	Aliança Renovadora Nacional (National Renewal Alliance)
BNH	Banco Nacional da Habitação (National Housing Bank)
CDHU	Companhia de Desenvolvimento Habitacional e Urbano do Estado de São Paulo (São Paulo State Company for Urban and Housing Development)
CEBRAP	Centro Brasileiro de Análise e Planejamento (Brazilian Center for Analysis and Planning)
CECAP	Caixa Estadual de Casas para o Povo (State Fund of Housing for the People)
CEDEC	Centro de Estudos de Cultura Contemporânea (Center for the Study of Contemporary Culture)
COHAB	Companhia Metropolitana de Habitação (Metropolitan Housing Company)
CRUSP	Conjunto Residencial da Universidade de São Paulo (University of São Paulo Residential Complex)
FAU-MACKENZIE	Faculdade de Arquitetura e Urbanismo da Universidade Presbiteriana Mackenzie (Mackenzie Presbyterian University School of Architecture and Urban Planning)
FAU-USP	Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo (University of São Paulo School of Architecture and Urban Planning)
IAB	Instituto de Arquitetos do Brasil (Brazil's Institute of Architects)
IAPI	Instituto de Aposentadoria e Pensões dos Industriários (Institute of Retirement and Pension)
IBGE	Instituto Brasileiro de Geografia e Estatística (Brazilian Institute of Geography and Statistics)
JUC	Juventude Universitária Católica (Catholic University Youth Movement)
MDB	Movimento Democrático Brasileiro (Brazilian Democratic Movement)
MNRU	Movimento Nacional pela Reforma Urbana (National Movement for Urban Reform)
MST	Movimento dos Trabalhadores Rurais Sem Terra (Landless Workers Movement)
PT	Partidos dos Trabalhadores (Workers' Party)
SASP	Sindicato dos Arquitetos do Estado de São Paulo (São Paulo Architects Union)
UMM	União dos Movimentos de Moradia (Housing Movements Union)
UNICAMP	Universidade de Campinas (University of Campinas)
USP	University of São Paulo

ABSTRACT

How does the built environment become political? In this dissertation, I address this question by investigating the politics of low-income housing in São Paulo from the mid-twentieth century until the mid-1990s. A growing sociological literature on materiality and power has contributed to a better understanding of the cultural dynamics of different material and spatial phenomena, but it has not led to a broader theoretical clarification of how the built environment influences meaning-making practices and how it is further shaped by the variety of meanings that circulate in society, as well as how it becomes associated with available (but constantly changing) political discourses and practices. I develop a theoretical framework on how materiality becomes incorporated in circuits of social practice based on a theoretical integration of Pierre Bourdieu's field theory and Charles Peirce's semiotics. The process of articulating *semio-material practices* (materials, forms, methods of construction, and forms of using space) and *political repertoires* (discourses and practices pertaining to the exercise of power) is always situated, limited, and pragmatic. In light of these concepts, I show that progressive architects and several other actors involved in the production of the built environment came up with two main *programs* for low-income housing in São Paulo from the 1950s up to the 1990s: a first program centered on the quest for the industrialization of construction and a program formulated after the late 1970s that centered on the participation of future residents in the practices of design and construction. Each of these programs is a typical articulation of a certain political repertoire and a repertoire of practices of design, construction, and habitation. In addition, each of these programs relies on and helps to reinforce certain images of the *people* for whom those residences should be produced and that they would help to constitute as a collectivity. The theoretical framework elaborated in this dissertation sheds light on a diversity of processes of material and political articulation of the built environment in different historical and geographic contexts.

CHAPTER 1

Introduction

The housing question and the politics of the built environment in São Paulo

If the social sciences were to be assessed by their capacity to describe empirical regularities and make predictions, Friedrich Engels's investigation of the housing question should be considered one of the most successful works ever written. In a pamphlet published in 1872, Engels describes a process that is widely known by urban scholars working on a diversity of social contexts:

The so-called housing shortage, which plays such a great role in the press nowadays, does not consist in the fact that the working class generally lives in bad, overcrowded and unhealthy dwellings. This shortage is not something peculiar to the present; it is not even one of the sufferings peculiar to the modern proletariat in contradistinction to all earlier oppressed classes. On the contrary, all oppressed classes in all periods suffered more or less uniformly from it.... What is meant today by housing shortage is the peculiar intensification of the bad housing conditions of the workers as the result of the sudden rush of population to the big towns, a colossal increase in rents, a still further aggravation of overcrowding in the individual houses, and, for some, the impossibility of finding a place to live in at all. (Engels 1872:21)

Engels's analysis is an accurate picture of the historical process that took place in European cities in the nineteenth century and that is still in place in metropolises of the Global South. Nevertheless, despite its ubiquity in such different historical and geographic contexts, the housing question acquires specific political, social, architectural, and urban characteristics in

each manifestation. The *objective problem* of housing shortages and the deplorable housing conditions that lower-class families tend to find in rapidly growing cities become a *political* and an *architectural* question in accordance with specific local political arrangements and as a partial consequence of available local practices of producing the built environment.

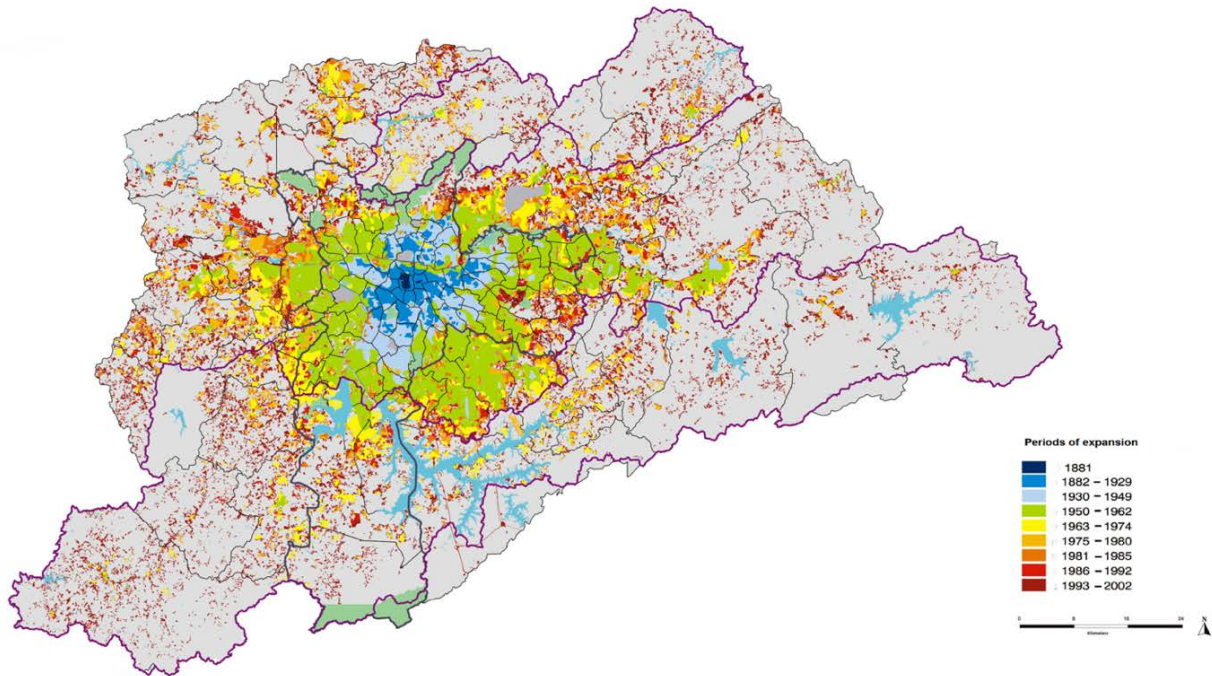
The production of the urban, particularly in a situation of rapidly changing cities, raises the problem of the architect's position toward the politics of the time. This is particularly true for the question of designing and building low-income housing—the most significant aspect of the production of the urban in rapidly expanding cities. In this dissertation, I deal with the political, semiotic, and material dimensions of the housing question in São Paulo, from the mid-twentieth century until the 1990s. More specifically, I attempt to answer the question of how the built environment and low-income housing more specifically became sites for the articulation of different political practices and discourses, on one hand, and of practices of design, construction, and habitation, on the other.

São Paulo is an extreme case of the urban and social dramas narrated by Engels. It represents one of the most important cases of urban expansion in the twentieth century and a noteworthy instance of urban expansion in the developing world—that is, a case of extreme “urbanization under low wages” (Maricato 1999; Oliveira 1982). Until the last decade of the nineteenth century, São Paulo was a small administrative village and also a commercial entrepôt connecting the coast and the countryside, with a population of around sixty-five thousand in 1890. With the successful expansion of coffee estates in the Brazilian southeast, the escalation of European (mostly Italian) immigration, the installation of a railroad system that connected the city with the Santos harbor and the centers of coffee production in the interior of the state, and a steady process of industrialization, São Paulo grew frantically in the

following decades (see figure 1 and map 1). In the 1890s, around nine hundred thousand European immigrants (70 percent of them from Italy) passed through São Paulo, either to stay in the city or to move to the countryside, usually to be employed as farmers in the production of coffee. In the following two decades, another nine hundred thousand individuals arrived, mostly from Italy, Portugal, and Spain; around fifty thousand Syrian and Lebanese immigrants and thirty-five thousand Jews also made their way to the city (Rolnik 2003:16).

São Paulo's population more than doubled between 1920 (579,000) and 1940 (1,318,500). This pattern of demographic growth would linger during the following three decades, especially as a consequence of the influx of migrants from the Brazilian northeast and from rural areas of the states of São Paulo and Minas Gerais, most of whom were attracted by the expansion of the industrial economy on the fringes of the metropolitan region (Azevedo 1958:chapter 1).

Despite the existence of a few limited public programs for housing credit and provision up to the mid-1960s (Bonduki 1998; Holston 2009), no agency at any state level could meet the housing demands of such a rapidly growing population, who had to rely on their own resources and efforts and to take advantage of the limited options that the real estate market had to offer in order to address the housing question on a family or individual basis. Moreover, not only would the scale of the housing question change with the influx of migrants attracted by the expansion of industries in São Paulo starting in the 1940s; so would the type of housing provision and its integration in the expanding metropolis.



Map 1. São Paulo Metropolitan Region, urbanized areas by period of expansion (1881–2002). Source: Prefeitura de São Paulo, Departamento de Estatística e Produção de Informação.

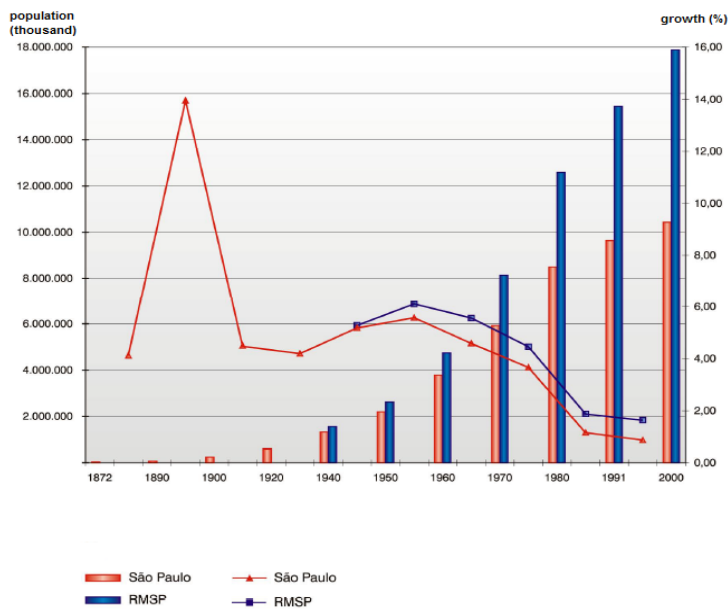


Figure 1. Demographic growth of the city of São Paulo and metropolitan region (RMSP), 1872–2000. Source: Prefeitura de São Paulo, Departamento de Estatística e Produção de Informação.

Until the 1930s, rental rooms in tenement houses within or close to the city center constituted the predominant form of lower-class housing. Some of these tenements were built specifically for this purpose by investors, and others were adapted from old bourgeois houses (image 1). Nevertheless, families who owned large estates surrounding the administrative and commercial central zone of the city grasped the future economic potential of that land and steadily parceled off and sold lots in their properties to land speculators starting in the last two decades of the nineteenth century (Bonduki 1983; Langenbuch 1971). Until the 1940s, the supply of land lots exceeded effective demand. The fact that those regions were not connected to the central districts or to the new industrial neighborhoods by any form of public transportation also complicated this situation, leading to a dramatic housing crisis in the 1920s and 1930s. This situation gradually changed starting in the 1930s, when a bus system was created to complement and later replace the trolley system that served the central areas (Petroni 1958:150; Rolnik 2003).



Image 1. Complex of tenement houses in Bixiga, a central neighborhood. Source: unknown photographer, ca. 1930s, Casa da Imagem.

The expansion of peripheral neighborhoods deprived of basic urban infrastructure but gradually connected to the city center by a bus system provided the minimum requirements for urban incorporation of a rapidly growing population. Poor families who had recently moved from rural areas or whose members had just found their first jobs in the city usually searched for land lots in peripheral neighborhoods where they could build their own houses. The culture of land ownership was a crucial component of this dynamic. In 1920 only 19 percent of São Paulo's population owned their houses, but 53.8 percent of families would be homeowners by 1970 (Bonduki 1983:146).¹ Nevertheless, this culture was not the only element affecting families' calculation to purchase a piece of land; that decision process was also a consequence of the dynamics of the real estate market and of the limited role the state had in the process of urbanization.

After the passing of a federal law in 1942 that prohibited rent rises (the so-called Lei do Inquilinato, or "Tenants' Law"),² developers and speculators started to invest mostly in the allotment of peripheral regions in order to supply land plots for sale to the rapidly growing population. It is widely known that a significant share of these new lots were either utterly irregular or had an uncertain legal basis, which led to a situation of lasting insecurity for hundreds of thousands of families (Gohn 1991; Holston 2009). Such wide availability of precarious, frequently irregular, but relatively affordable land also helps to explain why "*favelas*" (slums), although they existed throughout this period in São Paulo, did not become

¹ In the mid-1970s, some of the poorest neighborhoods in São Paulo had levels of homeownership of around 75 percent (Maricato 1979:84).

² This law was one of the measures advanced by President Getúlio Vargas (1930-1945 and 1951-1954) as a way of reducing the living costs of the growing population of urban workers who constituted his main supporters and the intended beneficiaries of most of his social policies. Nevertheless, it also led to an unintended radical change in the forms of housing provision, from a mostly rent-based housing stock to the growing predominance of private ownership.

numerically significant until the 1980s, when the metropolitan region suffered a new economic and housing crisis.

The dynamic of migratory influx, land speculation, scarcity of significant public housing programs, and the strategies developed by the incoming families led to the fundamental tripod on which São Paulo's urbanization rested: land ownership, peripheral lots, and autoconstruction (Maricato 1999). According to a 1958 assessment, one house was built in São Paulo every twenty minutes during that period—which is probably an underestimation (Petrone 1958:159). These houses were usually built through several years, mostly on weekends and on a family basis and sometimes with the help of relatives and friends as well as the occasional support of freelance construction workers, but very rarely with the assistance of architects and engineers. They were the material and spatial consequence of the aggregation of popular know-how, simple techniques, cheap materials, and an extension of the workday beyond the already strenuous conditions of the time. Most of the construction materials were purchased at the closest possible stores, leading to lower transportation costs but also to a common material and constructive monotony that marked entire neighborhoods (image 2). An “architecture of the possible,” as critical urban scholars began to point out in the 1960s (Ferro 2006; Maricato 1979), accounted for around 63 percent of all residences built in São Paulo until the 1980s (Kowarick 2000:29).

This pattern of urbanization, in which the lower classes were responsible for the provision of their own houses over several years of overwork, is an important element of the “class spoliation” that characterized Brazilian economic development, urbanization, and peculiar forms of citizenship in the twentieth century (Holston 2009; Kowarick 2000; Santos 1979). It is also undeniable that this process of occupation and material production of São

Paulo's peripheries shares many similarities with the expansion of other cities in the Global South, especially in regard to the limited participation of the state in the regulation of land occupation, the existence of frequent irregularities in the production of the built environment and incorporation of new territories into the city, and the process of autoconstruction (Cavalcanti 2009; Chatterjee 2006; Fischer, McCann, and Auyero 2014; Murray 2011).



Image 2. Peripheral neighborhood in São Paulo, 1970s. Source: Bartira V. V. Costa, published in Kowarick (1994:179).

The single and the multiple

Peripheral neighborhoods formed by the slow autoconstruction of simple and usually precarious houses became the fundamental face of the social and housing question in São Paulo. They form an urban and social landscape that still defines the majority of the

metropolitan region today. Indeed, these peripheries were not homogeneous, either in terms of their material aspects or with respect to the socioeconomic status of their residents. But certain characteristics permeated the majority of these regions on the outskirts of the city, in particular when contrasted with middle- and upper-class neighborhoods, mostly located around the old downtown region. These central neighborhoods concentrated not only economic resources but also the attention and resources of the economic and cultural elites as well as most investments in public infrastructure and urban planning.

Despite recent urban and social processes that led to a complexification of São Paulo's traditional geography of inequality (Marques 2015; Marques, Scalon, and Oliveira 2008), the periphery historically occupied the place of the material, social, and political Other of the wealthier central "lettered city," inhabited by the economic and cultural elites, including the majority of "professionals of the urban," such as urban planners and architects.³ These burgeoning peripheral neighborhoods are also the main background informing the politics of architecture in São Paulo since the 1950s. How could architects, commonly associated with progressive sectors of the political field, carry out their professional activities in a situation in which most of the built environment was being produced by new urban residents completely disconnected from the supposedly progressive discourses and practices that the avant-garde of the field had developed since the 1950s?

The ways in which architects addressed the housing question in São Paulo and how the low-income house became a site of articulation of political discourses and material practices represent a local manifestation of a common political dilemma that architects have had to face

³ "Lettered city" is the expression popularized by Angel Rama to describe the connection between the imagination and practices of Latin American cultural elites and the idealized configuration of planned urban spaces. The "lettered city" worked at different times in the history of Latin America as an ideal regime of power and knowledge to regulate how cultural elites expected to frame society by defining the law and ordering urban spaces (Rama 1996).

in radically different historical, social, economic, and urban contexts at least since the expansion of industrial European cities in the early 1890s. This dilemma can be described as the passage from the *one* to the *many*, from the *single* to the *multiple*, and it concerns two central dimensions: First, how can architects establish a progressive connection with the majority of the population, which is frequently destitute in terms of basic living conditions—housing and urban infrastructure included? Second, how can architectural practice maintain a critical attitude toward reality in the context of a scarcity of economic and technical resources? The first dimension is political and epistemic: forging a connection with low-income families involves taking a political stance and developing a shared set of assumptions about the world, society, the city, and possible futures. The second dimension is semiotic and technical: How can the built environment signify and instill progressive values, and how can architects more effectively promote the transformation of this built environment? In addition, in both dimensions, a certain image of the social and the people is mobilized, transformed, (re)constituted.

As I show in this dissertation, progressive architects and several other actors involved in the production of the built environment (residents and construction workers included) came up with two main *programs* for low-income housing from the 1950s up to the 1990s in São Paulo: a first program centered on the quest for the industrialization of construction and a program formulated after the late 1970s that centered on the participation of future residents in the practices of design and construction. I argue that each of these programs is a typical articulation of a certain political repertoire and a repertoire of practices of design, construction, and habitation. In addition, each of these programs relies on and helps to reinforce certain images of the *people* for whom those residences should be produced and

would help to constitute as a collectivity—a “people yet to come” that the architect was to help to bring forth.

The politics of the built environment: Toward a sociological theory

The analysis of the material and cultural politics of housing in São Paulo is an entry point into the problem of the relation between politics and the built environment. This dissertation raises the broader question of how the built environment becomes political. In order to elaborate a theoretical framework to address this question, I also develop a sociological analysis of how materiality becomes incorporated in circuits of social practice, based on a theoretical integration between Pierre Bourdieu’s field theory and Charles Peirce’s semiotics.

As I show in chapter 2, a growing number of sociologists have recently deployed cultural perspectives to the study of materiality and, more specifically, the built environment. These scholars have developed different frameworks to address how meanings become materialized and how the built environment structures social interactions, or how it conveys power. This literature has contributed to a better understanding of the cultural dynamics of different material and spatial phenomena, but it has not led to a broader theoretical clarification of how the built environment influences meaning-making practices and how it is further shaped by the variety of meanings that circulate in society, as well as how it becomes associated with available (but constantly changing) political discourses and practices.

In order to address these shortcomings, this dissertation proposes a “sociology of building(s)” — building both as a verb (the process of designing and constructing) and as a noun (buildings as material objects themselves, with their many possible uses)—centered on

the problem of how individuals and collectivities articulate political discourses and practices and repertoires of design, construction, and habitation. I argue that the process of matching *semio-material practices* (materials, forms, methods of construction, and forms of using space) and *political repertoires* (political discourses and practices) is always situated, limited, and pragmatic. In other words, there is no unmediated connection between politics and the built environment. Individuals involved in the production and use of the built environment pragmatically (that is, with limited creativity, dispositions, and repertoires) deal with the discourses, practices, and resources available, in order to transform both the material aspect of the social world they inhabit and the ideas and practices that guide their understandings of how the social world works and how history should unfold.

Between empirical case and theory building

This dissertation builds on the recent literature in historical sociology in proposing a deeply historical modality of sociological research in which sociological problems are analyzed in terms of their spatial and temporal particularities (Gorski 2013; Sewell 2005:199; Steinmetz 1998). It is also influenced by a critical realist philosophy of the social sciences, according to which historical configurations and processes are explained by the conjunction of different constellations of social mechanisms (Bhaskar 1998; Collier 1994). In addition, the theories advanced in this study as well as the analysis of the empirical case follow the idea that social mechanisms are effective only as they are “meaningful” to social agents. As critical realists and pragmatists argue, social mechanisms “do not exist independently of the agents’ conceptions of what they are doing in their activity” (Bhaskar 2008:48; see also Dalton 2004;

Gross 2009). Therefore, this work attempts to develop a theory of social mechanisms that attends to the cultural nature of social practices.

This dissertation's intended contribution lies on two different levels: elaboration of a better understanding of the transformations of the politics of low-income housing in São Paulo and development of a sociological theory of how the built environment becomes inscribed in circuits of social practice. These two endeavors are connected by a process of theoretical reconstruction and maximalist interpretation. As Reed (2011) argues, one of the main goals in the social sciences is to develop maximal interpretations, a form of text in which abstract theories are used to reevaluate and resignify empirical evidence. This reevaluation and resignification, in the case at hand, was carried out side by side with the reconstruction of cultural theories of the built environment and of the role of materiality in social practices.

As authors in different theoretical and methodological traditions have pointed out, the single case study is a primordial instrument of theory development (Ragin and Becker 1992; Steinmetz 2004; Tavory and Timmermans 2013). The connection between case and theory in this dissertation does not fall within the two most noted forms of scientific reasoning, induction and deduction; it is a case of abduction—a term coined by Peirce to describe the process of generating a new research hypothesis to explain new scientific findings. In Savory and Timmerman's words, "Abduction is the form of reasoning through which we perceive the phenomenon as related to other observations either in the sense that there is a cause and effect hidden from view, in the sense that the phenomenon is seen as similar to other phenomena already experienced and explained in other situations, or in the sense of creating new general descriptions" (Timmermans and Tavory 2012:171). Several ethnographers and historical sociologists have recently pointed out another crucial dimension in the exercise of developing

social theories from single cases (either historical or ethnographic): the process of theory development depends on the initial immersion of the analyst in the universe of social theory, from which they extract preliminary hypotheses, analytical perspectives, and working concepts. Therefore, abduction is a modality of integration of cases and theories in which the latter provide entry points to the pursuit of empirical findings, but these partial findings enable the reconstruction, complexification, and development of those initial theories.

This research logic certainly applies in the case of this dissertation. Although I do not argue that my initial theoretical assumptions and interests function as “preferred theories” to be extended through immersion in the empirical case—as in the tradition of the extended case method popularized by Michael Burawoy (Burawoy 2009; Burawoy et al. 2000)—, I do argue that my initial assumptions, methodological choices, and working concepts were initially conditioned by my theoretical interest in field theory, semiotics, pragmatism, and the critical scholarship of Sérgio Ferro, a Brazilian architect and critic who is also one of my research subjects (see chapter 6). This interest was also motivated by an intuition that those theories provided a productive initial platform for the analysis of the politics of the built environment. Finally, this dissertation also builds on insights from critical urban studies (Brenner 2004; Harvey 1989, 2000; Tajbakhsh 2000), particularly the recent literature on peripheral cities (Caldeira 2001; Robinson 2006; Roy 2009; Simone 2004), as well as on critical works on the multiple dimensions of space production and everyday forms of resistance (Certeau 2002; Lefebvre 2008). The latter literature is particularly generative of many of the empirical issues that this study addresses, but it also helped me to tackle the issue of the situated nature of theoretical production.

In sum, the study of the disputes within the field of architecture in São Paulo and the elaboration of different programs of low-income housing, as well as the assemblage of different housing projects, allowed me to advance a theoretical framework about how buildings become inscribed in circuits of social practices and how they are articulated with political discourses and practices.

Research methods and strategies

The research for this dissertation was conducted during three research trips to Brazil. During the first trip (May–August 2011), I mapped out institutions and actors (social movements, architectures, planners, university professors) involved in discussions on public housing and planning in general in São Paulo in the last forty years. I informally interviewed fourteen individuals with different roles in the history of planning and architecture in the period, and I also interacted with several others. Finally, I spent a considerable amount of time in three different archives in order to build an initial catalog of the available journals, images, transcripts of interviews, and newspaper articles on the history and structure of the field of architecture in São Paulo and on the politics of low-income housing (two FAU-USP libraries and the Multimedia Archives of Centro Cultural São Paulo).⁴

During my second research trip (June–December 2012), I conducted long (usually two to four hours) life-history interviews with selected architects, activists, and planners. I also twice visited two of the main projects that are the subjects of different chapters of this dissertation: Cecap Guarulhos (chapter 5) and Copromo (chapter 7), where I formally interviewed and informally interacted with residents. I photographed both projects during

⁴ See appendix for a list of interviewees, primary sources, and archives.

those visits. On this research trip I also worked in different archives, especially at FAU-USP and Biblioteca Mario de Andrade, where I reviewed all the architectural journals published in São Paulo from the 1950s until the early 1990s and photographed articles, images, and other information that were relevant for this project. I also extensively researched the archives of the two major São Paulo newspapers (*Folha de São Paulo* and *Estado de São Paulo*).

During the third research trip (May–December 2013) I continued research in other archives in São Paulo and in Rio de Janeiro. I also conducted the remaining life-history interviews and visited União da Juta, where I also interviewed activists, collected research materials, informally interacted with residents, and photographed the housing complex.

This brief description shows that the two most important methods used in this research were life-history interviews and archival research. As Glaeser asserts (2011:59), the idea of combining archival research with interviews is that these two genres of data form “a lively commentary on each other,” allowing for a complexification of the narratives gathered by means of each one of these methods. I conducted twenty-four life-history interviews with architects, urban planners, engineers, activists, and critics who were involved in the design and construction of key low-income housing projects in São Paulo during the period covered by this study or who were important players in the dynamics of the field of architecture during the same period. I also was fortunate to establish a relationship of trust and cooperation with Tiago Cavalcante Guerra, a historian who resides at Cecap Guarulhos and who had led a team of junior researchers in a research project on the life histories of residents of that complex. Although excerpts of these interviews had been published, Tiago granted me access to the entirety of seven long interviews with longtime residents, together with archival data that his team had gathered. Other interviewees—Vitor Lotufo, Wagner Germano, and Reginaldo

Oliveira de Almeida (Didi)—also granted me access to photographs, news stories, plans, and other research materials.

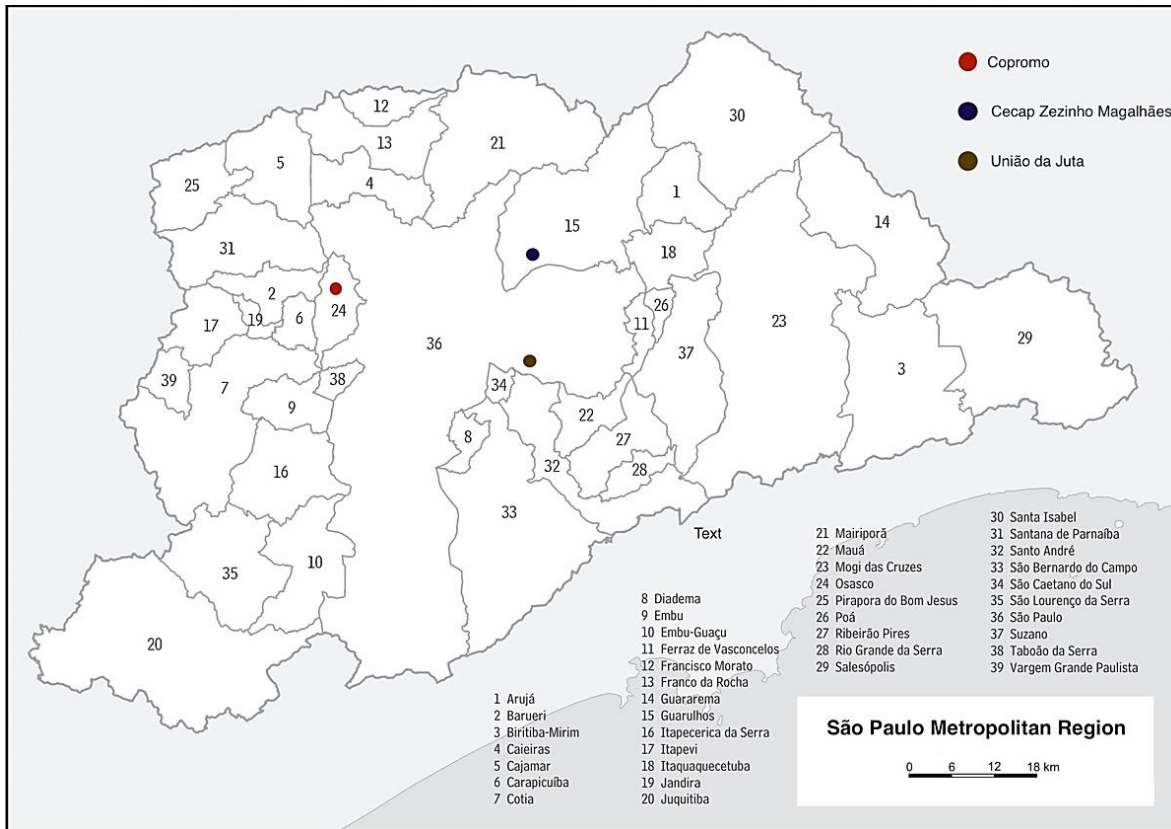
The visits to the housing projects allowed me to get a better understanding of the contemporary practices of habitation. During these visits, I was commonly conducted by the leadership of a local association of residents who had participated in the construction of those projects (in the cases of União da Juta and Copromo) or who had deep connections with many residents and good knowledge of the history of the project (in the case of Cecap). In all these cases they showed me the interior of their apartments, introduced me to neighbors, and allowed me to take pictures.

The selection of interviewees as well as the overall archival work was informed by two research strategies: reconstruction of the history and structure of the field of architecture in São Paulo from the 1950s to the early 1990s and, inspired by the literature on science and technology studies, a strategy of “following the actors” as they assembled their housing projects—that is, as they designed, constructed, and inhabited a few key housing projects. These two research strategies allowed me to articulate the theoretical framework that informs this dissertation (chapter 2) and to assemble the empirical data on the politics of low-income housing in São Paulo. In addition, they were carried out side by side with a systematic review of the literature on Brazilian political and cultural history from the 1950s until the period immediately after democratization (1988) as well as on the literature on Brazilian urban social movements.

In reconstituting the field of architecture in São Paulo from its genesis in the first half of the twentieth century through its maturity in the following two decades and on to its crises and reconstruction during the 1970s and 1980s, I was deeply informed by the Bourdieusian

literature on cultural fields, particularly Bourdieu's work on French literature (Bourdieu 1993, 1996). As I argue in chapter 2, I do not propose an unmediated transposition of that analytical model to the study of the production of the built environment. Nevertheless, methodologically, I followed most of Bourdieu's research strategies. My first step was to review both the contemporaneous and the recent literature on São Paulo architecture and urban planning. Simultaneously, I analyzed the writings, designs, and key works (visiting several of them or studying plans and pictures) of representative architects. More important, I reconstituted the history, dominant practices, and practices of socialization of the culturally dominant sector of the field through the study of architectural journals (specially *Acrópole*, *Habitat*, *Arquitetura & Urbanismo*, and *Projeto*), exhibition catalogs, and one important catalog of what was considered the most distinct production of that field (Xavier, Lemos, and Corona 1983). That allowed me, following Bourdieu (Bourdieu 1996:214), to reconstitute the evolution of the field of architecture, its internal structure at key moments, and the dominant practices of each sector. Finally, I plotted these "dominant works" on a map of the metropolis in order to analyze the connection between the "space of works" and "works in space"—that is, the position of that dominant architecture and the social geography of the city (chapter 3).

This initial exploration of the field enabled me to select a few key cases of housing projects that would provide ideal entry points to the politics of architecture as it changed in São Paulo during the period. Although I gathered data on several projects, I focused on the assemblage of three key cases: Cecap Zezinho Magalhães (commonly known as Cecap Guarulhos), União da Juta, and Copromo (map 2).



Map 2. Location of Cecap Zezinho Magalhães, Copromo, and União da Juta. The map also shows the thirty-six municipalities that form the São Paulo Metropolitan Region. Source: adapted from an original map from CEM (Cebrap/USP) at www.filch.usp.br/centrodametropole/631

For each one of these cases, I gathered information on the history of its design, the position of its designers in the field of architecture and their architectural and political perspectives, the dynamics of construction (when possible, some of the microdynamics at the construction site, primarily in the cases of União da Juta and Copromo), and the practices and habits of residents as they occupied those spaces and interacted with those built environments. As a methodological caveat, I must recognize that information on the microdynamics of construction, particularly the connection between the manipulation of materials and the power dynamics at the construction site, were almost absent from archives. But as I argue in chapters

5 and 7, this is particularly revealing about the relation between labor, power, and historical memory in the field of architecture and in the history of construction.

These two research strategies were informed by and allowed me to further elaborate the theoretical framework of this dissertation. Field theory and semiotics (in particular, in the pragmatist tradition inaugurated by Charles Peirce) were two of my initial theoretical starting points. They provided an initial ensemble of questions and methodological guidance that were further developed throughout the research project. By reconstructing the field of architecture in São Paulo and by following the actors as they assembled these housing projects, I could also develop the initial critical insights that allowed me to reconstruct those theories and to advance the concepts of *political repertoires*, *repertoires of semio-material practices*, *articulation*, and the *built environment program*. Also, the combined use of both methodologies gave me the opportunity to overcome the common divide that has been wrongly established in contemporary debates on social theory and cultural sociology: the divide between an allegedly more “structuralist” program of field studies and a more “agentic” program of pragmatism. Both methodologically and theoretically, I claim that this is an artificial and misguided controversy that can be easily dismissed if we read both Bourdieusian theory and the literature inspired by pragmatism—including the work of Bruno Latour, as well as other authors who influenced the theoretical work of this dissertation, such as the French pragmatism of Luc Boltanski and Laurent Thévenot—as different variations of a pragmatist theoretical and methodological agenda. Therefore, the contested nature of architectural and planning practices in São Paulo, as a case in which field-specific practices and strategies are disturbed and reconstructed by the clash of problematic interactions and situations, provided an empirical opportunity for the theoretical reconstruction of sociological theories of culture

and practice. This reconstruction aims to overcome the long-lasting division between a reconstruction of cultural systems, on one hand, and the analysis of meaning-making practices, on the other—an artificial and scholastic divide that has framed many recent debates on cultural sociology.

Plan of the dissertation

In the following chapter, I initially review the most relevant sociological theories on the connection between the built environment and social practices. Recent debates on this topic led to the emergence of three traditions: the symbolic, the structuring, and the power approaches. I argue that these approaches cannot adequately account for the multiple forms of integration of materiality (and the built environment, in particular) into meaningful circuits of social practices—a crucial step for developing a theory of the politics of the built environment. Then, based on recent debates in semiotics, pragmatism, and field theory, I proceed to develop the concepts of *semio-material practices* and *political repertoires* as well as a pragmatic framework for how individuals within certain communities of practice articulate those two mechanisms. I also develop the concept of a *built environment program*, which is a typical form of articulation between those two dimensions. This chapter provides the empirical framework that informs the remaining chapters, in which I develop a cultural and historical sociological account of the passage from a brutalist to a participatory program for low-income housing in São Paulo, from the 1950s until the early 1990s.

In chapter 3, I analyze the history and structure of the field of architecture in São Paulo from the early twentieth century until the late 1960s. This analysis allows me to show that the development of the semiautonomous field of architecture in São Paulo was characterized by

the development of a brutalist repertoire of semio-material practices deeply marked by an “ideology of design” that attempted to separate the practices of design from the practices of construction. Moreover, by reconstructing the *space of works* and by situating these *works in space* (that is, in the social geography of São Paulo) in mid-twentieth-century São Paulo, I show that the field was marked by a spatial and social separation between architects and the growing urban peripheries, that is, the spaces of sociability of the urban poor. In this and the following chapters, I argue that this disconnect between architectural practice and the urban experiences of large sectors of the population affected how architects articulated political discourses and practices pertaining to the design and construction of low-income housing.

In chapter 4, I face the question of how architects in São Paulo during the 1950s and 1960s addressed the political nature of their work and, more specifically, the *problem of the single and the multiple* briefly outlined earlier. I initially provide an analysis of the semio-material practices of design and construction characteristic of São Paulo brutalism. I also reconstruct the main elements of the political repertoire of national developmentalism, in which most progressive architects in the period were immersed. I claim that the image of the urban poor reinforced by this repertoire is marked by a severe distance from the empirical life experiences of this segment of the population. Then I show that progressive architects in the period deployed two semio-material strategies to operationalize the articulation between that political repertoire and the field of architecture: metaphorical indexicality and the impetus for the industrialization of construction.

In chapter 5, I analyze how architects articulated the project of construction industrialization as both a political and architectural project. I do this by developing a historical ethnography of the single most important housing project constructed in São Paulo

in the 1960s and throughout the 1970s: Cecap Guarulhos. Although most of the narratives about the project are centered on the role of the designers (particularly the main architect, João Vilanova Artigas), I show that the built environment is continuously produced through the articulation of different circuits of practice, of which architecture is one of the constituents.

In chapter 6, I analyze the crisis of the brutalist program for low-income housing during the 1970s and early 1980s and the initial emergence of an alternative repertoire of practices of engagement with the built environment and with the residents of peripheral neighborhoods. I argue that this crisis derived from a double reconfiguration, each situated in one specific field: the decline of the political repertoire of national developmentalism during the military regime (1964–1985) and the transformation of the field of architecture in São Paulo with the opening of new schools, the persecution of dominant figures by the military regime, the extinction of several mechanisms of consecration, and the establishment of more continuous relationships between young architects and poor residents of peripheral neighborhoods. These emergent practices, despite their impact on the disarticulation of the previous program, did not lead to the rearticulation of a new program for low-income housing until the mid-1980s.

In chapter 7, I analyze the articulation of this new participatory program. For that, I reconstruct the main elements of the political discourses and practices that emerged within the Brazilian left during the late 1970s and continued up to the early 1990s and the core values and repertoire of the housing movement in São Paulo in the same period. Then I show how architects attempted to develop new materials and techniques of design and construction that would allow for the material articulation of the main elements of that political repertoire.

Finally, I analyze various negotiations and tensions between the aspirations of some of the housing activists and architects.

In the conclusion, I summarize the main theoretical and empirical findings and suggest how they can contribute to a range of recent debates in social theory, cultural and urban sociology, and urban studies.

CHAPTER 2

How does the built environment become political? Articulating semio-material practices and political repertoires

Introduction

This chapter provides a theoretical framework for a sociology of the built environment that sheds light on the problem of the politics of low-income housing in São Paulo as well as on several other problems related to how built structures become incorporated in circuits of social practice—and political practices, more specifically. Therefore, this chapter addresses a central question: How does the built environment become political, or, in other terms, how are political repertoires and the built environment socially and materially connected? In order to address this question, it is important to elaborate first a theoretical vocabulary to deal with the problem of how physical objects—and the built environment, in particular—are incorporated in circuits of meaningful social practice.

The theoretical framework that I propose problematizes a number of common assumptions and narratives about the role of the built environment in the production, reproduction, and transformation of patterns of social relations, habits, beliefs, and practices. Not only in everyday discourses but also in the historiography of architecture, as well as sociological and anthropological works that take the built environment seriously, it is very common to find a series of assumptions about the direct connection between the built

environment and political ideologies that either gave rise to it or that are embodied in certain forms, shapes, colors, or materials. For example, the idea of “Soviet architecture” is frequently used not only to describe certain kinds of bulky, concrete buildings characteristic of Eastern Europe from the 1940s to the 1970s but also to denote certain forms of life, patterns of behavior, and hierarchies of power that those buildings allegedly embody and help to sustain. As another example, Fredric Jameson, in an influential work, traces a direct connection between a set of political and economic conditions—late capitalism—and a certain architectural style—“postmodern architecture” (Jameson 1992; see also Harvey 1991).

Nevertheless, I argue that buildings—and the material world, more generally—can become political only if informed by semio-material practices that circulate in a certain place and time, which those buildings also help to define. That means there is no direct, unquestionable connection between certain forms, styles, and architectural programs, on the one hand, and certain political repertoires or ideologies, on the other. Understanding a certain building or process of construction as eminently “progressive,” “liberal,” “conservative,” or any other political adjective that one might use depends on socially available practices, understandings, and habits about how to engage with the built environment. Repertoires of semio-material practices provide conscious guidelines or unconscious dispositions about how to articulate political discourses and practices in the form of built structures. They also mediate how individuals draw inferences from the built environment and engage it in social practice. In short, my main theoretical claim is that semio-material practices mediate the practical translation between political repertoires (discourses and practices) and the built environment. These semio-material practices should be analyzed at three moments in the “life” of the built environment: design, construction, and habitation.

Therefore, in order to explain how the built environment becomes political, it is necessary to advance a theoretical vocabulary about the connection between the built environment and socially meaningful practices—in other words, between culture and the built environment. In what follows, I initially review the sociological literature on the relationship between culture and the built environment. Next, I propose a new approach focused on the concept of repertoires of semio-material practices, which combines Bourdieusian field theory and Peircean semiotics. After that, based on the recent sociological literature on pragmatism, I argue that those sets of socially available repertoires of semio-material practices mediate between political repertoires and the built environment through pragmatic processes of articulation.

Meanings and buildings

In recent years, a growing number of sociologists have applied cultural perspectives to the study of the built environment. But while a consensus has emerged in the literature that both meanings and materiality play a role in shaping social practices, different explanatory and interpretive frameworks have been deployed to analyze how these two aspects of social life are connected. Many of these studies, inspired by Émile Durkheim's writings on totemism, have analyzed the symbolic meaning of the production and use of buildings for nations, social movements, and political regimes. Other contributions, influenced by the literature on ethnomethodology and science and technology studies, have emphasized the effects of buildings on social interaction and knowledge production. Finally, recent studies have stressed the role of the built environment as part of apparatuses of regulation and on the operation of state power.

Although all these literatures take seriously the fact that meanings and the built environment (or materiality, more generally) mutually condition each other, they have not sufficiently explored *how* that mutual conditioning operates. Also, most contributions to those literatures tended either to focus on just one modality of the cultural operation of material signs (that is, signs as symbols or as icons) or to emphasize the social embeddedness or social function of built structures, without a more detailed analysis of the semiotic codes and socially available repertoires of practices that orient how they become part of social practice.

The cultural sociology of the built environment would benefit from a more developed conceptual framework for the different modalities of meaning making that connect social practices and material objects (and the built environment, in particular). To address these concerns, I tackle one central question in the first half of this chapter: How do physical objects—and the built environment, in particular—become incorporated in circuits of meaningful social practice?

To answer this question, I propose a theory of *situated semio-material practices* that combines Bourdieusian field analysis with Peircean semiotics. Socially situated repertoires of semio-material practices orient how individuals interpret the built environment and engage with it. Also, this chapter investigates the theoretical consequences of shifting the analytical focus of a sociology of the built environment to the larger problem of objectification—or of the different material and semiotic practices involved in the production, circulation, and meaningful use of material objects (built forms, in particular). Semio-material practices orient how the built environment is understood and how it becomes consequential for social life at three different points of their objectification: design, construction, and habitation.

My effort to theoretically clarify the interconnectedness of built structures and meanings assumes that signs are material—a clear break with the idea that culture can be analyzed as sets of semiautonomous discourses or immaterial codes (Alexander and Smith 1993; Bourdieu 1999; Volosinov 1986). Many recent important contributions to material studies have attempted to break with the idea that language provides a model for the analysis of all aspects of culture (Gell 1998; Keane 2003; Miller 2005). These studies developed Charles Peirce’s critical insight that signs are material (in opposition to the Saussurian sign, which is an arbitrary idea) and that different kinds of signs have different material properties (Peirce 1991, 2011). Also, sociologists have recently emphasized the analytical potential of Peirce’s pragmatist explanation of meaning making for the analysis of social practice (for example, Emirbayer 1997; Tavory and Timmermans 2013). Nevertheless, I argue that the Peircean theoretical framework cannot provide a full account of how systems of meanings are socially situated. In order to clarify this problem, following Bourdieu, I show that a theory of semiautonomous social fields provides a platform to explain how semiotic codes are situated in the social space. By combining these two perspectives, it is possible to provide a full account of how the built environment becomes meaningful and how it becomes part of circuits of social practice.

In the next section, I critically review the recent literature in cultural sociology that has addressed the problem of the relation between meanings and materiality. Next, I develop a novel theory of situated semio-material practices that extends the contemporary literature on meanings and the built environment and addresses its major shortcomings. In order to do that, I build on Peircean material studies, focusing on the concept of “semiotic ideology,” and show how it can be complemented by a field analysis that draws from the work of Bourdieu. Then I

propose that a cultural analysis of the built environment has to account for the semio-material practices involved at three different stages: design, construction, and habitation.

Meanings and the built environment in contemporary sociology

The relation between meanings and materiality is a classic philosophical question but also a problem that recurs in several canonical works in sociology. Many of the central concepts and topics developed by the founding thinkers of the discipline mobilize—or at least assume—some type of relationship between the two. For example, Marx’s concept of “fetishism” is based on a certain understanding about what ideas emerge (or fail to emerge) when individuals in capitalist societies interact with a certain kind of material object, namely, commodities (Marx 2013:chapter 1). Durkheim’s analysis of “totemism” provides a blueprint for the study of the relations between symbols and shared ideas of what it is to be member of a certain social group. Georg Simmel and the founding scholars of the Chicago School of sociology explored the relationship between urban form and the emergence of an urban culture, or a type of “mental life.”

Many contemporary social theorists and cultural sociologists have built on those critical insights. A main thrust of much of the contemporary literature has been the need to avoid any form of unidirectional determinism, whether material or cultural. This literature has emphasized that culture and the built environment are intertwined and that social practices necessarily involve the deployment of meanings and materials (Alexander 2010; Gieryn 2002; Glaeser 2000; Jones 2011; McDonnell 2010; Mukerji 1997; Wagner-Pacifici 2005; Zubrzycki 2013). Most sociologists of culture agree that objects are bearers of social meanings but also

that those meanings are further elaborated and renegotiated through the production of and interaction with nonhumans (Jerolmack and Tavory 2014; Sewell 2005).

Despite this broad emerging consensus, it is important to note that there are some important differences in analytical emphasis in this literature. Indeed, I argue that there are at least three main approaches worth considering. While these different approaches are not alternative paradigms in dispute, they do tend to emphasize different aspects of the problem of how built structures—and objects in general—become meaningful, leading to different methodological and theoretical styles of analysis. These traditions place analytical emphasis on the symbolic dimension of the built environment, on the structuring impact of the built environment on the production of social articulations and emergence of new forms of knowledge, or on the import of built forms for the operation of state power and social regulation.⁵

The symbolic approach

The analysis of buildings as symbols of collectivities or as representations of state power is probably the most influential approach among cultural sociologists to the problem of the built environment. Many scholars in this tradition take Durkheim's quite specific analysis of totemism (Durkheim 2008; Durkheim and Mauss 1963) as a generalizable model of representation, usually complemented by other theoretical traditions, in particular structuralist semiotics (Alexander 2003; Bourdieu 1979; Saussure 1998), the anthropological literature on rituals (Turner 1995), commemoration (Halbwachs 1992), and memory (Nora 1996).

⁵ Although this review draws from many of Gieryn's critical insights in his review of "places" in sociology (Gieryn 2000), this chapter has a different purpose: it addresses only works that directly contribute to an understanding of the relation between materiality and culture and proposes a new framework for the study of this problem.

Certain aspects of the built environment are analyzed as “cultural objects”—as “shared significance embodied in form” (Griswold 1987:23)—and, as such, are studied as materialized representations of commemorative events, memories, or shared values and traditions for a certain community. Methodologically, most of these studies rely on the construction of social narratives and other symbolic systems associated with the group under study and then proceed to trace connections between those and significant built forms. This approach thus emphasizes the *symbolic modality of signification*, according to which semiotic codes that circulate in a certain society (even if those codes are contested, which is usually the case) might be materialized in the built environment, usually reinforcing those codes.⁶ Contemporary scholars have deployed this symbolic approach to analyze the relationship between places of memory and the constitution of nationalist movements (Zubrzycki 2006), the commemoration of controversial past events (Scott 1996; Wagner-Pacifici and Schwartz 1991), and the expression of social cleavages and disputes (Harvey 2005; Hayden 1982; Molnar 2010). All told, this approach has emphasized how the built environment materially represents the classification of people, leading to the constitution and reinforcement of collectivities.

The structuring approach

Several social theorists have highlighted a crucial aspect of our everyday experiences with the built environment: buildings and other built forms produce effects on patterns of social interactions and affect knowledge production and circulation. In other words, buildings do things (Gieryn 2000). Scholars writing in the ethnomethodological tradition have observed

⁶ Jerolmack and Tavori (2014), addressing the problem of the relation between human practices and nonhumans, describe this approach as “constructivist.” Despite their different theoretical concerns, particularly focused on problems of social interaction, many of their critiques of the constructivist literature and actor-network theory are relevant to the problems I am addressing here.

that buildings, and the built environment more generally, are not simply innocuous vessels in which social life unfolds; they are consequential to the formation of self- and group identities and of patterns of interaction. That is, they play a role in the structuring of relations between the self, intersubjectivity, and the social. These scholars build on Simmel's insights into the consequences of spatial forms on mental life (Simmel 1971), Mead's and Blumer's analyses of the role of objects and the physical environment in the formation of a generalized other (Blumer 1986; Mead 1934), and Goffman's emphases on the importance of the spatial dimension of social interactions for impression management (Goffman 1990) and for the organization of total institutions (Goffman 1961). More recently, scholars have pointed out that particular characteristics of a built form may alternately intensify *or* undermine social interaction (Allen 1984; Smith and Bugni 2006; Whyte 2001) and that some buildings may even be consciously planned so as to hinder the accumulation of shared experiences and understandings (Jansen 2008).

The literature on science and technology studies shares several concerns with ethnomethodology and symbolic interactionism. But whereas the latter focus on the situated production of social order, science and technology studies emphasize how certain sets of practices, patterns of interaction, and material constraints may lead to the construction of new (or the reaffirmation of old) forms of knowledge as well as the creation of technological artifacts. Laboratory ethnographies (Gieryn 2002; Knorr Cetina 1999; Latour and Woolgar 1979; Owen-Smith 2001; Woolgar 1988) have shown that physical settings plays a role in the establishment of routinized practices in science. Other studies have pointed out that a built environment can function as a "truth-spot," providing credibility to scientific practices and claims (Gieryn 2006), reinforcing hierarchies that command the organization of scientific

work (Galison 1997; Owen-Smith 2001), or presenting challenges to definitions of authorship (Knorr Cetina 1999). In short, these studies emphasize that individuals' perceptions and subjectivities, as well as the result of their practices, are constituted also by means of their interaction with and through the built environment.

The power approach

Many studies across the social sciences and humanities have recently highlighted that the built environment can be a medium for the manifestation of power (particularly state power) and for the regulation of social relations. Methodologically, most of these studies combine a macroanalysis of social hierarchies and power dynamics with a close investigation of how particular built environments contribute to the maintenance of social control and the reaffirmation of state power. These studies commonly emphasize two mechanisms through which this functions: built forms convey power either through the effective regulation of bodies in space or through the iconization of power. Michel Foucault's work on the apparatus of surveillance in modern society and of the function of a paradigmatic building—the panopticon (Foucault 1977)—provides the most fruitful model for scholars who emphasize the role of spatial forms in the regulation of bodies. This analytical model, in which a certain built/social form is elevated to the status of a paradigmatic “dispositive” of power, has been very influential in recent debates in the humanities and social sciences. Just to cite one example, Agamben's analysis of the concentration camp as the fundamental political formation of modernity (Agamben 1998, 2005) draws heavily on Foucault's analysis of the relation between space, surveillance, and social control. Scholars working on urban planning and architecture in colonial settings (Mitchell 1991; Rabinow 1995; Wright 1991) or on cities

organized according to the spatial repertoires of high modernist urban planning (Scott 1999) have also contributed to this approach.

Other cultural scholars have emphasized how the built environment can be organized as an iconic representation of state power or of a political regime, leading to a visual portrayal and a spatial patterning of social practices that reinforce the institutional and symbolic mechanisms of power (for instance, Zukin 1993). Chandra Mukerji's study of Louis XIV's gardens of Versailles (Mukerji 1997) provides a detailed narrative of the material manifestation of state power through the management of nature, technique, and built form. The creation of those gardens paralleled the creation of the French national state, so the gardens can be studied as both the iconic materialization of state power at the moment of its constitution and as a laboratory of that same power.⁷

The limits of current approaches

Each of the three approaches presented here offers important contributions to the cultural study of the built environment. Although they emphasize different aspects of space, each is a part of a broader project of "bringing the built environment" back in sociology (Zubrzycki 2013). This literature shares similar concerns with some of the most important recent innovations in the social sciences and the humanities in approaching social life through reinvigorated forms of "cultural materialism" (Bennett 2010; Latour 2007; Mol 2003)—a theoretical program that, to a certain extent, attempts to overcome old analytical dichotomies like the divide between nature and culture (also Descola 2013; Viveiros de Castro 1998).

⁷ This study (but also Mukerji 2002, 2009) illuminates how the manipulation of nature and the production of built forms is a political resource for the manifestation of one crucial aspect of modern political power: territoriality (see Mukerji 1997:35; also Mitchell 2002; Scott 1999), or the realization of power "through successful intervention into the realm of nature, making it the object of territorial ambition" (Mukerji 1997:38).

Regarding some of the most influential methodological and theoretical traditions in cultural sociology and cultural studies, these three approaches move beyond the very common strategy of restricting the study of culture to the analysis of discursive formations. In that sense, they assimilate many of the most productive recent theoretical perspectives in the discipline, particularly the ideas of the primacy of practice (Bourdieu 1992; Gross 2009; Swidler 1986) and the incorporation of nonhumans in the definition of social structures and the explanation of social processes (Jerolmack and Tavory 2014; McDonnell 2010; Sewell 2005; Tavory and Swidler 2009).

Nevertheless, I argue that these studies have not led to an analytical framework that explains these multiple dimensions of the relation between culture and the built environment—or a theoretical framework that explains how the built environment, in different contexts, can participate in each one of these ways in circuits of social practice. The achievement of a synthetic theoretical vocabulary is important for several reasons. First, as I mentioned initially, these approaches are not presented in the literature as conflicting perspectives but as alternative lenses for the study of the problem. As a lens, each selects particular aspects of the problem, leaving others unattended. For example, studies of the symbolic approach or the power approach rarely deal with the semiautonomous nature and the social situatedness of the field of designers and place makers. The structuring approach offers a more “practice oriented” perspective, but it rarely addresses in a systematic fashion how individuals connect the cues from the built environment to the many possible semiotic codes available—in other words, it lacks a theory of how the cultural repertoires of individuals are socially situated and how they become operationalized in specific cultural-material settings or in particular interactions. Also, the power approach very commonly restricts the semiotic

operations that connect the built environment and state power to the mechanism of iconicity, leaving aside, as we will shortly see, other possibilities of operation of material signs—particularly as “indexes.”

Second, most of this literature focuses exclusively on certain analytical and temporal moments in the process of design, construction, and use of built forms. Studies in the ethnomethodological tradition focus almost exclusively on the use of buildings, and the symbolic approach rarely deals with the moments of construction. This focus on particular moments prevents the formulation of new questions and empirical studies about how each one of these moments in the life of buildings are connected. For example, each of these approaches, taken separately, fails to offer an analytical vocabulary for the study of how construction workers and built environment users consent to or subvert the initial intentions of building designers or state officials (or other clients who might have commissioned a certain building).

Third, most of this literature has not dealt with the problem of materiality itself.⁸ Materials impose resistance to their manipulation, circulation, and consumption to a much higher degree than the resistance imposed by language. Language is more malleable than bricks, steel, glass, and concrete, which makes linguistic or symbolic elaboration more “materially” autonomous than most forms of material construction. Of course, that is not the same as saying language is not material as well—speech demands the command of a diversity of bodily skills and is also affected by the environment, and some literary genres (poetry, in particular) consciously play with the material dimension of language.

Materials are not docile (Latour 2007): they impose limits to their manipulation and in many cases act as quasi-independent causal agents. As the philosopher Jane Bennett said,

⁸ McDonnell (2010) and Zubrzycki (2013) are important exceptions.

human experience “includes encounters with an outside that is active, forceful, and (quasi)independent” (Bennett 2010:17).⁹ Nevertheless, this imposition of limits, and most aspects of materials’ and objects’ participation in circuits of practice, becomes significant only when culturally and practically incorporated by humans (Jerolmack and Tavory 2014; Vandenberghe 2002), according to socially available semiotic codes and repertoires of practice.

In summary, each of these approaches, considered separately, leaves unexplained fundamental problems about the material and cultural projects involved in the production of the built environment, particularly the labor and semiotic processes that connect design, construction processes, and building uses.

Toward a theory of situated repertoires of semio-material practices

In order to address these shortcomings, this chapter proposes to expand this perspective in order to develop a “sociology of building(s)” — building both as a verb (the process of designing and constructing) and as a noun (buildings as material objects themselves, with their many possible uses). In other words, the sociology of the built environment that I propose is a cultural analysis of the process of production of the built environment, and of buildings as material-cultural objects, at the different moments of *design*, *construction*, and *habitation*.

⁹ Although Bourdieu only occasionally further elaborates the mechanisms through which materiality and space actively participate in circuits of social practice, his concept of habitus—and his entire phenomenology, to be more accurate—captures this encounter with an external world through which individuals are shaped but also through which they help to shape their social and material worlds. See, for example Bourdieu (1979, 2001, 2005).

In this section, I formulate the concept of situated semio-material practices that will later be deployed to analyze each one of these moments in the social life of the built environment. I argue that Peircean semiotics, and recent works that extended Peirce's conceptual framework to the study of materials and objects, can provide the theoretical basis for an analysis of socially situated semiotic engagements with the built environment. I first explore the main tenets of Peircean semiotics and Bourdieusian field theory in order to develop my own theory of situated semio-material practices.

Peirce's theory of signs and the concept of semiotic ideologies

A growing number of sociologists have recently incorporated Peirce's semiotics and his analysis of scientific inference into current discussions about social practice (Emirbayer 1997; Gross 2009; Shalin 2007) and the pragmatics of sociological explanation (Tavory and Timmermans 2009, 2012). Simultaneously, several scholars working on materiality have deployed a model of culture that is deeply influenced by the writings of the American philosopher Charles Peirce (Gell 1998; Hull 2008; Keane 1997, 2003; Miller 2005). According to these authors, signs are processes that fully incorporate the materiality of the world; the "materiality of signification is not just a factor for the sign interpreter but gives rise to and transforms modalities of action and subjectivities" (Keane 2003:413). Three important aspects of this literature provide analytical tools for my concept of semio-material practices: the idea that signs incorporate the objects that they signify, the analysis of different types of signs, and the idea that meaning making is processual.

One of the main reasons for Peirce's influence in the interdisciplinary field of material culture is the fact that Peircean semiotics offers better tools for linking meaning to social context (Mertz 2007:338) than the main alternative model of Saussurian linguistics, which

relies explicitly on the separation between linguistic structures (“*langue*”) and speech (“*parole*”). It is widely known that the Saussurian sign is composed of a signified (a mental image) and a signifier (a sound image) (Saussure 1998). The relationship between these two aspects of the sign is understood to be arbitrary. Also, a Saussurian analysis focuses on the system of signs itself and not on the relation between signs and the material and social worlds. Further, the Saussurian analysis of signs is fundamentally synchronic—it devotes special attention to the structure of systems of signs rather than to either the historical processes leading to the constitution of those systems or the actual instances of discourse by language users. This focus on the synchronic explains why it has been particularly challenging to develop a concept of practice exclusively based on Saussurian linguistics (Bourdieu 1992; Sewell 2005).

Therefore, the main difference between those two models of cultural analysis lies in their contrasting conceptualization of the *sign*. Peirce’s model of the sign relation is triadic and diachronic. Peircean sign relations are composed of a sign, an interpretant (the effect of the sign on someone who comprehends it—an idea, a sensation, a habit, among others), and an *object*. Based on this definition of signs, Peirce develops several possibilities of sign classification.¹⁰ Most famously, Peirce explained that signs can have three different relations with the objects they signify: they can be icons (signs that resemble the object: a picture is an icon of a person), indexes (signs that indicate connection or causality: smoke is a sign of fire), or symbols (signs based on arbitrary social convention: a flag is a sign of a country). Each of these three different modalities influences how signs are going to be perceived and how they might be incorporated in practice. Signs exist and function in a certain way only when they are

¹⁰ The number of possible classifications varies throughout the development of his semiotic theory. For an overview of Peirce’s semiotics, see Lee (1997:95–134).

perceived as such, since they are functions of practices of interpretation and exchange (Keane 1997:32).

One crucial modality of signification that has been relatively neglected by the different approaches reviewed here is that of indexicality. Indexes, as briefly described earlier, are signs that point to causality or direct connection—for example, a brushstroke is an index of an artist’s hand gesture. Indexes permit a cognitive operation of “abduction of agency” (Gell 1998)—that is, the observer, when facing an index, can make tentative causal inferences about the type of social agency that was responsible for producing a specific material sign; as in any process of abduction, those inferences are subject to further revision (Timmermans and Tavory 2012:171). Through the indexical mode of signification, artifacts have the capacity (not always exercised) to “index” their origins in the act of their manufacture.¹¹

In this sense, the type of social agency indexed in any object is not defined exclusively by its materiality (although the object might motivate a certain type of interpretation instead of another—Gell:67), but also by the *social possibilities of reception* of a certain work in particular contexts and by the place it occupies in a network of social relations (Gell:123)—in other words, by a socially situated semiotic code or repertoire. Although indexes are less arbitrary than symbols, they still rely on the availability of socially shared codes and practices that lead them to be interpreted as indexes. This is crucial for an analysis of the built environment, because different sets of semio-material practices might lead to the abduction of different forms of agency: the architect’s, construction workers’, users’, or clients’ agency. For instance, the interpretation of design buildings often tends to emphasize the architect’s agency at the expense of all other agencies involved in their process of production.

¹¹ Also, the possibility of drawing inferences about different types of agencies varies in the course of an object’s life: a Salvador Dalí painting can index Dali’s dream world, Dali himself, the material of which the painting is made, or the clients of a modern art gallery (Gell 1998:57).

A third important aspect of the Peircean model of semiosis—or the process through which signs are produced and interpreted—that has been explored by material studies is the idea that signs are processual. Each practice of sign interpretation leads to new interpretants, in a continuous process of signification that might lead to the formation of a *habit* as final interpretant. Signs (and meanings more generally) are part of chains of causal connections that link material and nonmaterial things as well as humans and nonhuman elements.¹²

Peirce’s suggestions about the various possible relations between signs and objects—of which icons, indexes, and symbols are the most commonly discussed (Peirce 1991)—open possibilities for the analysis of multiple modes of objectification and of the formation and operation of “semiotic ideologies,” or the “basic assumptions about what signs are and how they function in the world” (Keane 2003:419). Semiotic ideologies¹³—composed both of explicit theories and discourses and implicit tendencies and embodied dispositions—organize understandings in a certain time and space about what possible agents can exist, how indexes and other signs should be perceived, and how objects become incorporated into social life (Keane 2003:419–20; Hull 2008; Strassler 2010). Keane points out that one of the main characteristics of materiality is that any object is a “bundling” of many qualities—that is, there is no “redness” in the material world; “redness” can be materialized only in a certain object, in a certain shape, and so on (Keane 2003; Peirce 1991). McDonnell (2010), for example, shows how the bundling of material qualities in AIDS mass media campaigns in Ghana enable different meanings and uses of specific posters, billboards, and other materials—that is,

¹² This relation between semiosis and practice is an important aspect of recent rehabilitations of pragmatism in sociology (Emirbayer and Goldberg 2005; Gross 2009; Joas 1993, 1997; Tavory and Timmermans 2013). Tavory and Timmermans (2013), in particular, emphasize this aspect of Peirce’s semiotics for the theorization of meaning making and the establishment of causal claims in ethnographic research.

¹³ With this concept, Keane expands the influential idea of “linguistic ideologies” (Silverstein 2003) to nonlinguistic signs, particularly to material signs. As a side note, there are noticeable similarities between Keane’s use of “semiotic ideologies” and Umberto Eco’s concept of “semantic fields” (Eco 1978:89).

content cannot be taken in isolation from the other elements and qualities of a particular (material) message or sign. Signs might have more than one order of signification—they do not only denote, but they can also connote more than one meaning (Barthes 1977)— which depend on socially accepted arbitrary conventions of understanding. These socially available ideologies establish parameters and models for individuals and groups to make sense of the many possibilities of interpretation of a sign, since any sign is at least relatively arbitrary.

Semiotic ideologies provide “instructions” for signs to be made apparent and for the accomplishment of different modalities of objectification and the different forms of subjectivity, practice, action, and possible reflexivity that they entail (Keane 1997:11). They guide the attention of an observer to “what matters” and provide a culturally shared set of signposts that can be mobilized when facing any object. For example, there is a widely accepted semiotic ideology of nationalism in the United States: many different signs, particularly when used in collective public rituals, are understood as referents to the nation, commonly leading to certain forms of habitual behavior. Consider that the act of burning a piece of cloth is not a problem unless it is *perceived* as a flag. When most Americans (and non-Americans, for that matter) see a piece of cloth with thirteen horizontal stripes alternating red and white with a blue rectangle bearing fifty stars, the semiotic ideology of nationalism biases their attention away from the material of which it is made, its size, and so on, focusing on the totality of the flag as a symbol of the nation. It is interesting to notice that, when placed in unusual contexts (particularly in contexts in which other semiotic ideologies are predominant), the flag becomes a much more ambiguous symbol; that is, the abduction of that symbol does not guide the observer as unequivocally to the “interpretant” of the American nation. Think, for example, of Jasper Johns’s use of the imagery of the US flag in many of his

paintings: in the context of those pictures, it is not clear whether they are still flags, that is, if their interpretation connects that bundling of colors, shapes, and materials to the idea of the nation.

From semiotic ideologies to situated semio-material practices

Peircean material studies provide a vocabulary to describe possible modalities of signification and the dominant semiotic ideologies in certain contexts. Nevertheless, this literature has at least one major shortcoming. Although it provides powerful analytical tools for interpreting the social practices that connect individuals and material objects in circuits of meaningful social practices, this literature has not devoted enough attention to how the semiotic ideologies that organize the perception of material signs is embedded in social relations and in specific realms of social life. That is, while Peirce's semiotics calls attention to the role of the interpreter as part of the sign (a sign is always produced "for someone"), his theoretical scheme does not shed any particular light on the partitions of the social and on the historically situated forms of perception. This means that we could misread the significance of forms of perception of signs that circulate only within specific social fields, within specific communities of practice, or within particular sectors of society. For example, one could identify a semiotic ideology that orients architects' perceptions in certain places and times, and that ideology might not correspond to the general ideologies that nonarchitects mobilize for making sense of the same buildings; also, the perception of symbols of state power is not the same across society—it might vary by region, ethnicity, class, and so on (Hall 1981).

Furthermore, the idea of "ideology" can lead to problematic readings. Most authors who employ this concept tend to emphasize the practical dimensions of the mobilization of

semiotic ideologies. However, the concept might still lead to a mentalist understanding of what those guidelines to interpretation are. Therefore, instead of describing these guidelines for meaningful action and interpretation as ideologies, I find it more appropriate for the purposes of this dissertation to describe them as *socially situated repertoires of practices*. The idea of practice also emphasizes the process-oriented and situated aspect of semiosis that Peirce correctly pointed to in his writings. Furthermore, given the prevalence of nonmaterial models in sociological interpretations of culture, it is pertinent to emphasize that those socially shared guidelines of interpretation are also material, since any sign has some kind of materiality associated to it. Combining Peircean semiotics with Bourdieusian field analysis in a theory of *situated semio-material practices* can remedy these problems.

Situated semio-material practices

Bourdieu's cultural sociology provides a complementary explanation for how semio-material practices emerge, how they circulate in different social realms, how they affect social practice more broadly, and why they work more or less effectively as shared repertoires of practices.¹⁴ These practices that guide the interpretation of and the engagement with the built environment or any object are situated in the social space. Not all members of a certain society necessarily share certain understandings about how to make sense of certain signs. For example, a brutalist building is a site of dispute of different semiotic material practices: a large number of architects understand these buildings as iconic manifestations of certain tendencies in modernist architecture and their display of brute materials (particularly unpainted concrete) as indexes of their processes of production. But many individuals consider those buildings

¹⁴ Several sociologists have recently pointed to the similarities between Bourdieu's and pragmatism's theories of action (Bourdieu and Wacquant 1992:122; Dalton 2004; Emirbayer and Goldberg 2005).

outdated, ugly, aggressive “concrete shoe boxes” (Pogrebin 2012). These different understandings usually lead to divergent political and practical understandings about how to inhabit those buildings and about the need preserve them.

This situated character of material semiotic practices can be further clarified by Bourdieu’s theory of social fields. Most attempts to study the built environment from a Bourdieusian perspective have focused specifically on *architecture* as a cultural field. Bourdieu suggests in more than one passage that, although architecture is not as autonomous as painting or literature, the theoretical principles he develops to study the work of Flaubert or Manet could equally be deployed to the study of architectural practices (see Lipstadt 2003:391–392). Scholars who have deployed the concept of “field” to the analysis of architecture have placed special emphasis on three processes: the struggles for the delimitation of the field of architecture itself (Stevens 2002); the very limited autonomy of architecture from the field of power (especially when compared with literature or art) due to the inclination of states and nations to mobilize the built environment in order to advance forms of solidarity, identity, and structures of power (Jones 2011); and on the establishment of “design” as the specific form of capital in the field of architecture (Lipstadt 2003).

The concept of field (Bourdieu 1990, 1996, 2005) has been very productive in preventing two common tendencies in traditional sociologies of knowledge and art. First, field theory provides a detailed understanding and theoretically solid set of tools to interpret how particular theories, artistic works, practices, and repertoires become accepted as legitimate. This is a crucial analytical gain when compared with the loosely defined idea of “context” commonly employed in many exemplary works in the history and sociology of ideas but also in material studies. Besides, the concept of field draws analytical attention to the

semiautonomous nature of many social practices. This is a productive response to the tendency of traditional sociologies of knowledge—particularly Karl Mannheim’s influential work but also many versions of reductionist Marxism and Durkheimian sociology—to rely on a direct relation between “social being” and “thinking” (or the material world and the world of ideas), leading to oversimplified ideas such as “bourgeois art,” “proletarian thought,” or to constructions such as “the physical layout of their village defines their conception of space” (Glaeser 2011:41–42).¹⁵

Many sets of semio-material practices—but certainly not all or most of them— emerge from social fields, and they might become influential outside their fields of origin. More broadly, these repertoires might emerge within specific communities of practice, of which fields are particular cases. Certain semiotic practices can also be reinforced and disseminated in the social space after their initial development within specific fields—for example, without the development of the field of psychoanalysis, a cigar might just be a cigar, not the iconic index of a “castrated phallus.” In the case of the built environment, several material semiotic practices that are developed within a field only later become disseminated more broadly. For example, the idea that certain materials (especially concrete, glass, and steel) represent modernity emanates from the practices and discourses of architects from the late nineteenth century to the mid-twentieth century and became assimilated in popular discourses and practices only later (Forty 2012).

The development of these sets of practices is always contested, both within the field and when it influences individuals outside the field. Fields can also have internal differentiation. Different sectors of a field can develop certain kinds of semio-material

¹⁵ These analytical advantages of field analysis led to a recent proliferation of studies of several social fields, such as American postwar poetry (Büyükokutan 2011), world literature (Casanova 2004), and German colonialism (Steinmetz 2007).

practices that are not widely available in other sectors. For example, the field of architecture is commonly divided between a more artistic, avant-garde sector and more commercial sectors (Stevens 2002). The practices of design will vary considerably at these two poles: the former valuing originality, signature buildings, and solution to unique problems and the latter attaining to already tested and economic solutions.

The concept of field is particularly helpful in emphasizing one important dimension of the social operation of signs and social practice more broadly: they tend to correspond to the partition of the social and to either reinforce or challenge that partition. But not all semio-material practices operate within or emerge from fields. Social stratification more broadly is usually associated with a diversity of semiotic practices, as in what Volosinov called “multiaccentuality,” or the idea that different “accents” intersect in a sign (Volosinov 1986:23). Also, some semio-material practices are consciously or unconsciously deployed to efface social difference—the semio-material practices of (inclusive) nationalism and the Marxist understanding of capitalist exploitation through the semiotic and material practices of labor under a wage contract are examples of these practices.

Also, the idea of semio-material practices extends the Bourdieusian theory of social practice, providing a more detailed treatment of how the built environment helps to shape social practices but also how these practices participate in the constitution of the built environment. I do not argue that Bourdieu does not address the problem of the built environment or of materiality—a problem that he dealt with in many of his works (Bourdieu 1979, 2001, 2005). It is known, for example, that Bourdieu’s concept of habitus is deeply material; the habitus is an embodied set of dispositions that is formed by an engagement with the built environment, among several other processes. Nevertheless, a Bourdieusian treatment

of the production of the built environment as a social and cultural practice runs the risk of falling into a mentalist fallacy, particularly if such analysis is an attempt to apply his studies of the literary field to the analysis of fields of material production without the necessary treatment of the specificity of material practices. So, Bourdieu did not fully and explicitly integrate the built environment into his account of social practices and into his more properly theoretical works, or he attempted to provide a more developed account of the semiotic mechanisms that orient the interchanges between individuals and the material world. That said, his work—and particularly his theory of the field situatedness of certain social practices—is entirely compatible with a more developed semiotic elaboration of the material dimensions of social practice.

Semio-material practices and circuits of social practice

The discussion in the previous two sections provides the basis for a synthetic elaboration of the concept of semio-material practices. Semio-material practices are socially shared and individually effective sets of repertoires of practices that guide the interpretation and condition the forms of engagement with the built environment. These practices are socially situated in social fields, across fields, or within certain sectors of the social space. They provide conscious guidelines or unconscious dispositions about how to draw inferences from the built environment, how to produce and change it, and how to engage it in social practice. Also, they can be transformed through those many possible forms of engagement, because those sets of practices of interpretation and engagement are always precarious (that is, they are open to further revision and elaboration) and because the built environment also challenges the adequacy of those sets of practices.

The availability of repertoires of semio-material practices in a certain context conditions how individuals mobilize them when faced with certain situations. Semio-material practices can be effective only when individuals have the embodied dispositions to perceive signs in specific ways, among all the possibilities of interpretation of any set of signs. These sets of practices do not determine individual instances, but they provide embodied or conscious repertoires that might be mobilized when individuals interact with and in the built environment. In other words, these repertoires are experienced and can be described as habits: they are “relatively coherent repertoires for thinking and acting” (Gross 2009:371) that condition how an individual will navigate the built environment and incorporate it through practice.

More specifically, these repertoires of practices are deeply conditioned by the material environment itself. As mentioned before, objects and the built environment have “projects”: they age, decay, fall apart, grow, rot, resist manipulation, and impose conditions of success or failure. This is certainly consequential to how they participate in social processes. Materials have a quasi-independent life, such as when their interaction with humans is limited for historical circumstances—ruins and archeological remains are primary examples of that. A border wall between two countries has multiple social meanings, but it also materially imposes limits to circulation; in other words, the semio-material practices in which it becomes engaged are both socially and materially conditioned. Also, a ruin, for instance, is another example of a type of built environment that exists only by means of material processes that condition the forms of cultural engagement with it. A ruin is a semio-material object, and it exemplifies nature’s mastery “over the work of man”; nevertheless, these built environments are socially experienced as ruins just because they are “infused with our nostalgia” (Simmel

1959:259). This combination of a material (decay) and a cultural dimension (nostalgia) is at the root of the different semio-material practices through which ruins participate in social dynamics and habits—“ruin gazing,” for example (Hell and Schönle 2010; Steinmetz 2008a).

Repertoires of semio-material practices are significant in terms of how the built environment becomes entangled and consequential for circuits of social practices. Those circuits are characteristics of many different social realms, including the ones described by the recent literature on meanings of the built environment: nationalism, group formation, knowledge production, interactions, and state formation, among many others. In this sense, the concept of semio-material practices provides a theoretical entry point to explain *how* the built environment becomes meaningful—and, for that reason, how it becomes part of social structures and processes.¹⁶ For this reason, they can also provide an entry point to the analysis of how the built environment incorporates, sustains, and challenges power. Repertoires of semio-material practices can be generated, deployed, or subverted for social domination, resistance, or contention. The concept is particularly helpful to explain the political dimension of materiality, since it provides an entry point into the analysis of different, contested, and socially situated understandings about agency, possible uses of space, hierarchies of labor, and social value.

Semio-material practices of design, construction, and habitation

The concept of semio-material practices can be particularly helpful in making sense of how individuals produce, understand, and navigate buildings. In this section, I propose an analytical framework for the deployment of the concept of semio-material practices.

¹⁶ For a discussion about the relationship between meanings and materials in the definition of social structures, see Sewell (2005, 2008) and Steinmetz (2008b). The concept of semio-material practices provides a framework to understand how the two components of social structure in Sewell’s last rendition of his theory are connected—that is, semiotic codes and the built environment.

My central argument here is that different sets of semio-material practices constitute each phase of the “social life” of buildings. Most of the sociological literature on meanings and materials neglects one crucial aspect of the built environment: built structures have a history—or a “life.” This life does not begin when buildings are ready to be used; it begins when it only exists as ideas and drawings, which later will guide a tentative and dynamic process of material manipulation. Also, the use of buildings involves many practices that conform to but also go against the initial program for which the building was designed and built. Looking at the semio-material practices mobilized in each phase in the life of built structures clarifies one crucial aspect of culture, an aspect that Miller defined as the *dialectics of objectification*—or how “the things that people make, make people” (Miller 2005:38; see also Appadurai 1988; Keane 2003; Miller 2009). This process is not unidirectional: through objectification, the “semiotic status of things is transformed across historical processes” (Keane 2003:418), but also the interaction with the material environment leads to the transformation of the initial practices. In order to provide a more encompassing framework for the cultural analysis of the built environment, I propose the analysis of semio-material practices involved in three analytical moments of the built environment: design, construction, and habitation.

Design

Most buildings are not designed by professional architects—in other words, by groups of individuals recognized as endowed with the technical and aesthetic skills to fulfill this function and who have the necessary social consecration and recognition for that (Bourdieu 1998). Nevertheless, even in the case of vernacular buildings, certain shared ideas of what a

building should look like and how it should fulfill a certain function still circulate and are effective in the production of new spaces (Oliver 1998, 2007). An analysis of this point in the process of objectification of the built environment should address which practices are mobilized by designers, through which channel previous models impact the formulation of each new design, and how the semio-material practices of design channel broader social and political expectations about the spaces being designed (see, for example, Molnar 2005, 2010).

The field of architecture, in its many national and regional manifestations, tends to reinforce the semio-material practices of design. In fact, the separation between “design buildings” and vernacular buildings is an effect of the social recognition of a set of semio-material practices, usually reinforced by the field of architecture. The central idea of this set of practices is that *design* is the crucial moment in the process of objectification of a building; also, design is strictly associated with the mental work of the architect.¹⁷ The historical formation of the field in the past five centuries involved a fundamental effort and a continuous struggle to separate the practices of designers and builders (Ferro 2010; Lipstadt 2003; Stevens 2002). The consequence of this set of practices is that architectural built forms index the mental labor of the architect, steering the process of interpretation away from other forms of labor involved in the process of production.¹⁸

Several of the semio-material practices of architecture reinforce this understanding about how buildings come to be in the world. Architectural competitions, for example, are structured practices that reinforce the moment of design and produce a “field effect,” or an illusion of semiautonomy of the practice of designing (Lipstadt 2003). During competitions, architecture, as a set of semio-material practices of design, becomes relatively immaterial—or,

¹⁷ I further elaborate this point in chapter 5.

¹⁸ In the case of prestigious architects, the semiotic ideology of design indexes buildings to the architects themselves—it is not uncommon to describe specific buildings as “a Corbusier” or “a Frank Gehry.”

more precisely, its materiality is primarily “iconic,” in the form of plans, blueprints, elevations, and so on—given the character of plans and blueprints as nonbuilt objects. The technical language of representation mobilized in the field of architecture reinforces the broader operation of the semio-material practices of design as the separation between mental work and the manual labor of construction.¹⁹ In fact, in most Western societies, architectural education is deeply focused on the practices of design (Stevens 2002:188–189). This idea strongly orients the self-understanding of architects, and it frames most discourses mobilized to legitimize its practice as well as a considerable proportion of academic analyses of architecture and the public perception about “design buildings” (Lipstadt 2003; Stevens 2002; Whyte 2006).

The material semiotic practices of design mark the development of the field of architecture at least since the fifteenth century. They function as a crucial factor for the creation and reproduction of this field, in its many national or regional manifestations. Most medieval cathedrals were built by guilds of construction workers, many of them experts in particular techniques (masonry, for example) (Ferro 2006; Ingold 2013; Lipstadt 2003). In this sense, forms were not yet independent from the process of making. Modernist architecture, since the late nineteenth century, has been deeply marked by a “utopia of form” as a way of organizing the perceived chaotic, disorganized experience of modernity. That marked the obsession with planning—and the plan, as materialization of that impulse—of many artistic and intellectual traditions, especially architecture (Tafuri 1979:62).

¹⁹ Stevens points out that, among architects, drawings of buildings are in many cases even more important than the objects that they refer to and that, in some cases, “an honorable mention can be superior to winning a competition, for it means that the architect does not have to undergo the risk of losing symbolic capital by having his or her project tampered with, should it ever be built” (Stevens 2002:97; also Larson 1994). Furthermore, the study of notorious unbuilt projects is part of architectural education: it is very unlikely that any student of architecture, at least in most of the Western world, will not be exposed to Le Corbusier’s unbuilt project for the League of Nations or Walter Gropius’s design for the Chicago Tribune Tower, just to cite two examples.

Construction

Construction is a neglected moment in the analysis of the production of the built environment²⁰—and in the history of architecture as well (Ferro 2010). Nevertheless, the study of construction practices reveals a lot about the different assumptions regarding how buildings should be understood, about the relation between design and final objects, and about the role of labor, materials, and technology in the production of the built environment. Also, construction is a central moment when the idea that materials resist practices of interpretation and manipulation comes to the fore. An analysis of the semio-material practices of construction should address techniques of construction, forms of manipulation of materials and tools, practices of interpretation of plans and blueprints, and organization and hierarchy of labor and expertise.

As Ferro (2006, 2010) points out, the study of construction sites opens new terrain to rewrite the history of the built environment, since it sheds light on aspects of social hierarchy, control, and the denegation of labor that one could not observe by looking at designers or users of buildings only. Ferro et al. (1987) analyzed the construction of Le Corbusier's Couvent de la Tourette. Contrary to the common emphasis on the role of Le Corbusier as a designer, this analysis stresses the many problems, solutions, and translations involved in the material production of that building and how the many practices of construction available at the time impacted the final built form.²¹

²⁰ Recently, science and technology studies have provided many examples of the practices involved in the production of technical and scientific artifacts (Bijker, Hughes, and Pinch 1987; Latour 1996, 1999; MacKenzie 1993), showing the potential of looking at practices of construction.

²¹ Another example: a cultural sociological analysis of “starchitecture”—a term that has been commonly used in the last decade to denote the work of some of the most eminent and disputed international architects, such as Norman Foster, Rem Koolhaas, and Frank Gehry—that contemplates the moment of construction leads to an important set of sociological questions about the relation between designers, states, and construction workers involved in the production of those structures (Arantes 2012).

Habitation

Shared cultural guidelines shape the use and interpretation of buildings. The definition of spaces as public or private, as spaces of work or leisure, or as dangerous, inspiring, and so on is based on shared semio-material practices that are culturally and socially situated. In most cases, different sets of practices clash with or complement each other in defining expected or appropriate uses of spaces—for example, private spaces are arenas of negotiation of different repertoires of practices available at a certain moment (Boudon 1972; Fehérváry 2011; Hayden 2002). Also, the use of buildings might subvert the initial intentions of designers or developers. This is particularly clear in the use of public spaces during moments of contention (Gould 1995; Harvey 1989; Said 2015; Tilly 2000). The analysis of the semio-material practices of habitation sheds light on the structuring effects of the built environment but also on the continuous negotiation of building users, either in the form of the creation of new repertoires of spatial practices or through the reconstruction or reform of those spaces to fit new needs, meanings, and intentions.

Also, a built form can function as the iconization of state power (or any form of power) only if a certain set of material semiotic practices available allows for that interpretation. For instance, a medieval cathedral functions as a representation of divine power only owing to the shared availability of a set of understandings—many of which derived from scholastic philosophy (Panofsky 1976)—that connect ideas of verticality, nonhuman scale, and light to an image of a Christian god. Brasília works as a symbol of the Brazilian state and modernity only because of the prevalence of a repertoire of semio-material practices at the time that connected a set of signs (ampleness of space, grandiosity, whiteness, readability of the plan) with the ideas of modernization and the image of a centralized nation state

responsible for conducting the project of modernizing Brazilian society (Gorelik 2005; Hollanda 2000; Holston 1989).

It is important to note that the semio-material practices expected from building users are not always the ones that come into play. Certain built structures sometimes just fail to signify that which clients and designers intended—the case of the early reception of the Vietnam Veterans Memorial by war veterans and many public officials shows this tension between expected practices and socially disseminated repertoires (Wagner-Pacifici and Schwartz 1991).

Political repertoires and the built environment

Buildings not only *mean* different things, but they also *become political* in multiple ways. Analysis of the three moments of the objectification of the built environment provides a methodological entry point to the study of the multiple and conflicting political uses and connotations of the built environment. Moreover, the concept of situated semio-material practices is particularly helpful in explaining how buildings come to be understood and experienced as political and incorporated in political processes. Semio-material practices of design, construction, and habitation mediate how different political ideas and practices with respect to the operation of the social world become associated with certain environments—that is, discourses and practices that conceptualize or affect models of social agency, social ontologies, theories of history, and economies of dignity. These discourses and practices are what I refer to as *political repertoires*. In what follows, I further detail the concept of political repertoire and elaborate an analytical framework to explain how this mediation between political repertoires and the built environment occurs.

What is a political repertoire?

It is not my purpose in this dissertation to provide a full theory of politics or even to review the enormous literature in sociology and political theory on the discursive, practical, and material dimensions of the operation of power in social life.²² My conceptualization of political repertoires here is pragmatic—it intends to provide a set of conceptual tools to deal with the broader problem of this chapter.

With that caveat, it is important to provide some clarification on what I mean by *the political* and *politics* in the context of the discussion of the politics of the built environment. The concept of politics that serves this theoretical purpose cannot presuppose any specific institutional arena—the modern state, for example—or a predefined set of routinized practices, structural relations, and dispositions—the field of power, for example. The notion of “the political” that this dissertation addresses refers to practices and institutions of several types that operate on different levels, that is, not exclusively in the arena of what is commonly understood as “modern political institutions” (the state, parties, bureaucracies, social movements, and so on). It is true that modern states and political regimes have been keenly aware of the political dynamics involved in the production of the built environment, as the sociological literature revised earlier correctly pointed out. Nevertheless, a more inclusive definition of politics has to be advanced in order to take into account other types of processes that impact and are impacted by relations of power and struggle regarding how social individuals should act, how institutions should be organized, how resources and different forms of capital should be distributed, among other crucial political issues that impact how individuals and social groups produce and inhabit the built environment.

²² For a recent review of the sociological literature on power, see Reed (2013).

A productive entry point into this inclusive definition of politics is Foucault's idea of "government" as the "conduct of conducts" (Foucault 1982). Although my theorization here does not follow Foucault in the entirety of his theory of "governmentality," I believe that his theory of power and governmentality—particular his courses and writings on power and knowledge in the modern world (Foucault 1980, 1982, 2009)—set the analysis of the political on a productive theoretical breadth and conceptual inclusiveness for my own theorization of political repertoires. Foucault proposes an understanding of the exercise of power as the act of government, that is, "the way in which the conduct of individuals or groups might be directed... To govern, in this sense, is to structure the possible field of action of others" (Foucault 1982:790). The exercise of power is "a way in which certain actions may structure the field of other possible actions" (Foucault 1982:791). In other words, the exercise of power is a meta-action, or an action that conditions the possible emergence and the structure of other actions.

Foucault's definition allows me to set analytically aside for a moment the two crucial dimensions of the sociological literature on power (see Reed 2013:196): the problem of consent, ideology, and hegemony (Gramsci 1971; Laclau and Mouffe 2014; Lukes 2005), and the problem of the state as the foremost arena of power in modern societies (Evans et al. 1985; Tilly 1993; Weber 1991).²³ By defining the problem of the political at a higher level of operation, Foucault highlights the intimate connection between politics and the production and development of the social in many of its dimensions.²⁴ So, the idea of the political as the

²³ Regarding this aspect, Foucault's theory of the exercise of power shares similarities with Bourdieu's analysis of the constitution of modern states, which are not the exclusive arenas for the exercise of power, but which resulted from a process of centralization of several forms of power, particularly symbolic power (Bourdieu 1998, 2015).

²⁴ To be sure, Foucault's theory of power does not preclude the study of specific institutions and relatively autonomous social arenas—as his remarkable works of modern medical institutions or practices of surveillance clearly attest (Foucault 1977, 2001).

realm of the exercise of power, and the exercise of power as the government of different realms of the social, allow for the conceptualization of political repertoires as sets of *metanarratives* and *metapractices*.²⁵ Political repertoires²⁶ are meaningful practices and discourses that might be mobilized by different social actors in order to conduct the structuration of specific realms of practice, including social institutions, political ideologies, and the constitution of different communities of practice, as well as to guide or justify their practices within those domains.

In other words, political repertoires are matrixes of practices and discourses that address different dimensions of the political. They are sets of socially available and situationally mobilizable claims, as well as practices associated with those claims, that affect how specific social arenas are constituted and how they participate in specific modalities of the exercise of power—for example, the formation of political parties or social movements, gender politics, and the creation of political institutions. Political repertoires crisscross these arenas and are rearticulated according to their specific *doxa*, struggles, and forms of attribution of value.²⁷ Moreover, these political repertoires also affect processes of individual and collective subjectification.

Practical or discursive elements of political repertoires can find support or resistance in particular institutions or communities of practice, leading to a gradual transformation of those repertoires. In this sense, political repertoires are situated in the social space more broadly but

²⁵ On politics as a metapractice, see Glaeser (2011:45)

²⁶ I avoid the term *ideology* to refer to those ideas and practices for the same reason I avoided using the term *semiotic ideology*: the risk of a mentalist understanding of those socially available, consequential, and relatively agreed upon discourses and practices pertaining to the social exercise of power. At the same time, the concept of “repertoires of contention” (McAdam, Tarrow, and Tilly 2001; Tarrow 2011; Tilly and Tarrow 2006) is strongly associated with claim-making *performances* and less identified with the discursive dimension of politics and with the structuring of social institutions and groups, as I am proposing here with the concept of political repertoire. But it is true that since political repertoires operate prominently, although not exclusively, within the field of power (Bourdieu 1998), those practices are very often contentious performances.

²⁷ For example, according to the specific type of capital within a certain field.

can find specific, refracted manifestations in particular social fields.²⁸ In other words, they are the semiotic dimension of the operation of power, or the metapractices and metanarratives that participate in and are influenced by the creation, operation, and transformation of different social institutions, fields, and other communities of practice (such as social movements, parties, regimes, among many others). Therefore, political repertoires set parameters for what is at stake in this exercise of conduct of conducts and provide a matrix of the practices that can be deployed in the struggles associated with that exercise. Those repertoires are historically and geographically specific, although certain matrixes—such as several versions of liberalism or socialism or certain repertoires of contention, among others—can be identified in multiple contexts.

Individuals deploy elements of available political repertoires in specific situations to either guide or justify their practices. By “deployment” I do not mean a completely rational process of picking and choosing among all the available elements of political repertoires. Instead, socialization, social position, and participation in specific social fields or communities of practice lead to a higher or lower propensity to mobilize elements of certain repertoires (Bourdieu 1987). Nevertheless, social determination is never complete. Individuals *pragmatically* deploy those discourses and structures of justification, in the sense that they more or less creatively (depending on habitus, social position, political opportunities, or degree of autonomy) interpret their social situations and the prospects of interfering in them by taking elements of available political repertoires as blueprints and guidelines.

“Pragmatically,” in the sense used in the previous sentence, means that social practices—and, in this case, the deployment of elements of socially available political repertoires—are always

²⁸ For a discussion of how individuals situated in specific social arenas (in this case, social fields) refract practices from other regions of the social space, see Bourdieu (1996:220).

situated on a continuum between creativity and determination (Gross 2009; Joas 1997; Wilf 2014).²⁹

For analytical purposes, it is useful to address four key dimensions of the political that political repertoires address:

(1) *Theory of the subject*: What is an individual? More specifically, is an individual mostly a conscious or a practical being? What is the relationship between being and doing? Do individuals respond mostly to interests or to affects?

(2) *Social ontology*: What are the collectivities that constitute the social world and how are they related? What is the connection between individuals and collectivities (especially “society” and “the state”)?

(3) *Theory of history*: How does history unfold? What is the relationship between human action and history? Is there any kind of historical inevitability? Is the present more or less politically charged than the future or the past?

(4) *Economy of dignity*: How should resources be distributed? What attributes and practices have higher or lower social value? Who or what institution is responsible for the management of those symbolic and material resources?

Different answers to these problems and the practices associated with these different positions are building blocks of political ideologies. Many ideologies with wide circulation in modern societies provide relatively stable sets of answers to questions in each of these four

²⁹ The concept of political repertoire shares similarities with Boltanski and Thévenot’s idea of *polity* (Boltanski 2011; Boltanski and Thévenot 1999, 2006). These sociologists, in *On Justification*, deal with the pragmatic process through which individuals justify their actions and deal with their disagreements. According to them, individuals do not draw from their personal values and interests when they have to deal with situations of normative conflict, but they rely on socially available “economies of worth” (that is, conceptions about what constitutes higher values of a common good), which are organized in relatively stable sets, which they name “polities.” In this version of pragmatism, individuals are not rational operators of political philosophies; the processes through which they judge their actions and settle disputes are informed by relatively consistent sets of structures of justifications and economies of worth.

dimensions. For example, a traditional and highly influential communist political repertoire, despite circumstantial variations, tended to emphasize individuals as “beings of consciousness,” responding to material interests³⁰ and at least potentially connected to other individuals in the same social class via an identity of interests (Laclau and Mouffe 2014:20; Santos 2014). Its social ontology accorded a central place to social classes as the main constitutive dimension of the social. Regarding its theory of history, the communist tradition tended to give immense historical weight to an inflated (revolutionary) future in contrast to a deflated (capitalist) present of alienation and exploitation (Santos 2014). Also, the two main versions of this repertoire tended to emphasize either the historical inevitability of a classless society or the role of a party in bringing forth this future. Finally, this repertoire tended to ascribe a special place to the need to equalize material resources—so its economy of dignity emphasizes issues of distribution, neglecting problems of recognition (Fraser and Honneth 2003; Santos 2014). This is certainly a schematic reading of this very heterogeneous tradition, but it shows that these four dimensions can be operated as heuristic devices for my analytical purposes.

Also, these are discursive as well as practical dimensions. They are not just responses to intellectual dilemmas but are sedimented responses to pragmatic political problems and challenges. So, to further explore the example, the tension between a “spontaneist” reading of the development of a working-class consciousness and a “vanguardist” alternative—which had as their main historical exponents two of the central figures of the Second Communist International, Rosa Luxemburg and Vladimir Lenin, respectively—should be read as

³⁰ Of course, several scholars and activists have criticized this view since it was initially formulated. For example, E. P. Thompson's groundbreaking work (Thompson 1964) pointed to the limitation of this narrow idea of social classes as defined by objective interests and to the political-revolutionary process as the passage between classes *in themselves* to classes *for themselves*. A similar critique was recently raised by authors that attempted to rehabilitate the work of Antonio Gramsci (Laclau and Mouffe 1987, 2014).

pragmatic articulations between different philosophies of the subject, social ontologies, and philosophies of history that deeply affected the dynamics of political struggle in several national contexts but which also changed through those dynamics. Finally, as this example also shows, these dimensions are analytically separated only for the sake of sociological analysis, since in practice they are deeply connected.

Political repertoires and semio-material practices

Political repertoires and semio-material practices are relatively autonomous but deeply connected. The ways in which individuals and social groups produce and inhabit their built environment does not have a direct, causal derivation from the ways in which narratives and practices pertaining to power operate. I propose that semio-material practices function as mediators between political repertoires and the built environment. This mediation is not unidirectional: the built environment also acts upon those repertoires but only through sets of practices that guide the understanding, the production, and the manipulation of the built environment. Like any mediator, these practices do not leave the political repertoires intact: they transform them in form, medium, or content.³¹ This mediation happens in the three analytical moments previously defined: design, construction, and habitation. Through the deployment of semio-material practices, individuals and social groups involved in the production and habitation of the built environment *articulate* political repertoires and the built environment.

Also, over the long term, the built environment might also help to shape the available political repertoires and semio-material practices. This is the point that the “structuring

³¹ I am using here Latour’s differentiation between “intermediaries,” which are processes and entities that transport matter or meanings without significantly transforming them, and mediators, which “transform, translate, distort, and modify the meaning or the elements they are supposed to carry” (Latour 2007:39).

approach” emphasized, and it is also a very common element of the ideology of design prevalent in high modernism but which is also deployed by several national and colonial states (Fehérváry 2013; Humphrey 2005; Molnar 2005; Wright 1991). For example, the Soviet version of mass housing was informed by the idea that inhabiting those spaces would be a crucial pedagogical process in the creation of new communist individuals and families. The framework presented here—as well as in the remaining chapters—acknowledges that the built environment impacts patterns of sociability and can influence the formation of new identities and collectivities, but only partially: individuals and social groups are not passive recipients of the material and spatial projects that designers try to instill through their drawings; individuals are also equipped with their own repertoires of semio-material practices that they mobilize to negotiate with the spaces they inhabit.³²

Schematically, the overall argument of this chapter can be represented as follows (figure 2):

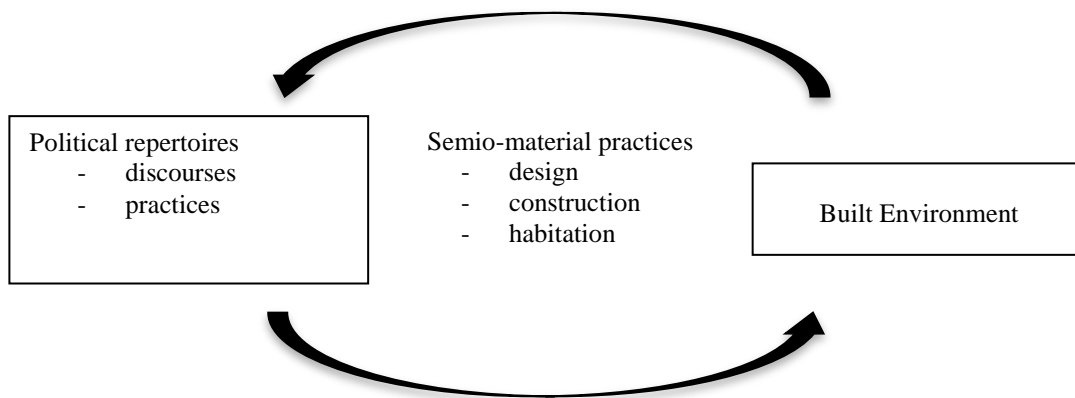


Figure 2. Schema of a program for the built environment.

These articulations are historically and geographically specific and highly dependent on the emergence and decline of social groups that disseminate certain political repertoires in

³² I develop this point in chapter 5.

specific contexts. I propose that a historically specific and relatively stable articulation between a political repertoire and a certain built environment through semio-material practices of design, construction, and habitation constitute a *program*. To give an initial example before I provide a more detailed elaboration of this idea: the dissemination of modern social housing in France in the three decades following the Second World War followed a specific program that connected a political repertoire that attributed a central role to the state in managing society and providing social rights; a set of semio-material practices of modernist planning, industrial construction, and centrality of the “user” in design and construction practices; and a built environment dominated by high-rises, commonly in peripheral areas of France’s cities (Cupers 2014). So, the idea of a *program* articulates political, semiotic, and material dimensions of the production of the built environment as well as the pragmatically established connections among each one of these dimensions. In order to further develop this concept of *program*, I need to further elaborate the concept of articulation.

Articulation and built environment programs

Social agents (individuals or social groups), through situated and relatively creative practices, attempt to adjust elements of available political repertoires through the manipulation of semio-material practices in order to produce, manage, navigate, or transform the built environment. This situated process of articulation is always incomplete and problematic—in the sense that the actors themselves cannot completely deal with the many translations and mediations that are necessary for this adjustment.

The idea of articulation has been particularly fruitful in contemporary sociological debates. Ernesto Laclau and Chantal Mouffe, in an influential post-Marxist theory of the

political, mobilize the concept of articulation to develop a theory of hegemony that deals with the problem of the constitution of a “people” (Laclau 2007; Laclau and Mouffe 2014; Mouffe 2013). They argue that the dynamic of hegemony—and, in a certain sense, the political as such—is the pragmatic, contextual articulation of different democratic demands in a hegemonic discourse that establishes internal relations of equivalence and external relations of difference between “the people” and other members of society (namely, the elites). In this sense, they define articulation as “any practice establishing a relation among elements such that their identity is modified as a result of the articulatory practice” (Laclau and Mouffe 2014:105). In a different tradition, the idea of articulation finds resonance in Latour’s “sociology of association,” or the description of the formation of assemblages between humans and nonhumans actants (Latour 1999; Latour and Woolgar 1979). Both traditions denounce the common sociological mistake of imagining preformed collectivities (such as “society” or “social classes) and emphasize the processes of articulation of collectivities of assemblages (Laclau 2014; Latour 2007).

My concept of articulation captures both the discursive and material (or nonhuman) dimensions of these definitions. The articulation is the process through which elements of political repertoires and the built environment are sewn together by means of semio-material practices. A *program* is a typified form of this articulation, and it corresponds to the complex reality of the practices of producing and inhabiting the built environment only in limited form. A program, then, is a typified association of humans and nonhumans that provides blueprints for the production and manipulation of the built environment (Latour 1990) which is overdetermined by the available political and semio-material repertoires brought together by

articulatory practices. It is a concatenation of material forms, actors, materials, practices, and discourses, pragmatically articulated within the given universe of possibilities.

Moreover, actors are always immersed and active in the dissemination and reconstruction of several simultaneous political repertoires—in the same way that, as Bourdieu and many field theorists show, they partake in several social fields simultaneously. For example, the political repertoire of citizenship and participation that characterizes the emergence and dissemination of practices of mutual help and autoconstruction in Latin America, largely associated with the political left and progressive sectors of the Catholic Church, lives side by side in mutual reinforcement with the neoliberal rhetoric of land ownership, especially in the version elaborated by the Peruvian economist Hernando de Soto and broadly propagated by the World Bank (Mitchell 2009; Soto 2002). Thus, the semio-material practices associated with community self-help construction and the types of built environments produced through those practices in several different contexts in Latin America are informed by different political repertoires in each local or national context, constituting different and in some cases conflicting programs for low-income housing.³³

A political repertoire crisscrosses different social fields, since it is situated in the social space more broadly. The field of architecture provides the principles of articulation between political repertoires and the production of a certain part of the built environment. Furthermore, the field provides the principles of hierarchization that condition who has access (with more or less autonomy) to effectuate that articulation. For example, in Brazilian architecture up to the construction of Brasília in the 1950s—at least in the dominant program as formulated by Lucio Costa, consecrated by Oscar Niemeyer, and further reproduced exhaustively in Brazil and abroad—the nation is considered the foremost collectivity, and the semio-material

³³ I develop this point in chapter 7.

language of architecture reinforces a symbolic relationship between the curves characteristic of Niemeyer's buildings and several other symbols of supposed Brazilian uniqueness (Filler 2013; Underwood 1994). This connection between a semiotic mechanism focused on the symbolization of a Brazilian nation leads to the divorce, at least in the most celebrated buildings, of the "national question" and the "social question" (Argan 2003; Wisnik 2004). Despite Niemeyer's association with the Brazilian Communist Party, in the political repertoire that informs the production of the most canonical Brazilian buildings from the 1930s to the late 1950s, the nation is not symbolized as a composition of social classes, but as an entity above them, in very close association with some of the dominant versions of a national developmentalism in vogue at the time, as we will see in the next two chapters.

Finally, by articulating a specific program for the built environment, individuals who perform the articulatory work also help to articulate and instill (more or less successfully) certain images of the social. For example, by articulating a program for low-income housing, a diversity of agents participate in the process of semiotic and political articulation of a "people" out of individuals. In this sense, the articulation of built environment programs are part of the process of articulating social collectivities. This idea of the semiotic articulation of a collectivity is a particular manifestation of the general pattern described by Laclau under the idea of "populism," that is the condensation of signifieds (in this case, the lower sectors of society in opposition to elites) into one signifier: "the people" (Laclau 2007). This process of political articulation is not just rhetorical, as Laclau's analysis seem to suggest (Laclau 2014); they also operate through the manipulation of materials and built forms.

As I show in the following chapters, the articulation for low-income housing programs is also part of the tentative process of articulating a collective subject: a people. This

articulatory work is not the consequence of a voluntaristic act from public agents, politicians, housing authorities, engineers, or architects, but of a diversity of situated practices of articulation that combine elements from available political repertoires and semio-material practices of design, construction, and habitation. So the elaboration of programs for low-income housing, as well as the design, construction, and occupation of actual houses and neighborhoods are also partial acts of articulation of a collectivity: the *people*.

Conclusion

In this chapter, I have argued that the built environment is a crucial element of circuits of social practice, including practices related to how power operates in society. I propose that semio-material practices mediate political repertoires and the built environment. These semio-material practices are embedded in communities of practice of which social fields are one possible example, as in the case of the field of architecture. Individuals pragmatically articulate political discourses and practices and the built environment via the deployment of socially available semio-material practices of design, construction, and habitation. I also have developed the concept of a *built environment program*, which is a socially available, routinized articulation of political repertoires, semio-material practices, and a certain type of built environment.

Additionally, this chapter develops a concept of articulation in order to provide a theory of the pragmatic production of political and semio-material programs for the built environment. The concept of articulation and the remaining concepts developed here clarify the pragmatic, context-specific processes through which individuals and social groups make the built environment “political”—or how they articulate materialized meanings and political

discourses and practices. The idea of articulation challenges sociological narratives that emphasize the homology between social entities and groups (such as the state or the nation) and certain built forms,³⁴ the notion that the built environment has an unmediated impact on patterns of socialization or that power is unilaterally exercised through buildings. In contrast to these explanations, the theoretical vocabulary developed in this chapter proposes a pragmatic process of agentic articulation between narratives and practices related to social and political power and practices of material and cultural manipulation and signification.

In the next five chapters, I deploy the concepts presented here to analyze the articulation and passage from a brutalist to a participatory program of low-income housing in São Paulo. Also, in the conclusion, I provide an overview of how the analytical framework presented in this chapter contributes to recent debates in sociological theory.

³⁴ Nevertheless, as I show in the next two chapters, the concept of homology is helpful in explaining the structural similarities between sectors of different fields, such as the political vanguard (field of power) and the artistic avant-garde (different cultural fields).

CHAPTER 3

Design and the people: The field of architecture in São Paulo, 1950–1970

Introduction

As was the case in many other Third World countries, Brazilian metropolises experienced a dramatic process of urbanization during the second half of the twentieth century. This massive urban growth, taking place in an underdeveloped country, posed crucial problems to urban professionals and political officials: how to incorporate the urban poor into the city. Modernist practices of design and construction, especially in their European versions, had dealt with this question since at least the late nineteenth century (Bauman 2000; Blau 1999; Hall 2002; Mumford 2002). Nevertheless, the flow of rural migrants into Latin American cities from the 1940s to the 1970s posed a social challenge of a new magnitude (Gorelik 2005; McGuirk 2014). The multiple answers that urban planners and architects would provide to this social, architectural, and urban question would renew modern architectural discourses on the city—and on the urban poor—but also show their limits.

How are “the people” incorporated into the practices of Brazilian architects? The culturally hegemonic, avant-garde sector of the field was dominated by leftist architects, many of whom associated with the Brazilian Communist Party—Oscar Niemeyer, the most prominent Brazilian architect, is the major example of such connection between a leftist imagination and the practice of architecture in Brazil. Nevertheless, as I argued in the previous

chapter, there is no direct connection between a political repertoire and a set of semio-material practices, and this is certainly the case for modern Brazilian architecture. The field of architecture is relatively autonomous from the field of power, where those repertoires are primarily generated and where they operate more prominently. Nevertheless, architects often perform a translation between those repertoires by means of the deployment of field-specific semio-material practices. The connections between political discourses and practices, on the one hand, and field-specific practices, on the other, was deeply problematic, polemical, and open to the influence of the state of the field of architecture and the field of power in different historical contexts as well as to the trajectory of particular architects.

This situation of deep entanglement between political discourses and practices and the practices of design and construction is central in the case of low-income housing—the dimension of architecture that most directly reflects this tension. In order to explain historical transformation in programs for low-income housing, it is important to observe both changes in political discourses and practices—especially those related to the urban poor—and transformations in practices of design and construction that take place in the relatively autonomous field of architecture.

Therefore, the first analytical step in reconstructing the hegemonic program for low-income housing in São Paulo in the 1950s and 1960s is to show how the field is historically constituted, what are its main sectors and disputes, and what repertoires of practices emerge in each one of these sectors—and particularly in the culturally hegemonic sector, which will hold the monopoly of this discussion in the period. This is the task of this chapter. First, I develop an analysis of the history and structure of the field of architecture in São Paulo since the early twentieth century. I show that the development of the semiautonomous field of architecture in

São Paulo was characterized by the development of a repertoire of semio-material practices that attempted to separate the practices of design from the practices of construction. Then, I situate the dominant architectural production of the time in the social map of the metropolis. This allows me to show that the field is marked by a spatial and social separation between architects and the growing urban peripheries—that is, from the living spaces and everyday practices of the urban poor. The disconnect between architectural practice and the urban experiences of large sectors of the population was not only a matter of political imagination and practice; it was also a social and spatial disconnect. Both dimensions of the practice of architecture in São Paulo during the 1950s and 1960s had an impact on how the built environment was incorporated in political discourses and practices. This dominance of the vanguardist practices of design and the social-spatial disconnect with the urban poor helped to define the conditions that led to the conversion between the dominant political discourses of the left in Brazil during the 1950s and 1960s and the semio-material practices of design and construction of low-income housing.

Field of architecture in São Paulo from its origins to the late 1960s

Design—and other ideas that are semantically associated with it, such as “plan” and “project”—was a common trope, an organizing idea, for Brazilian artists, architects, and intellectuals in the mid-twentieth century. That was also the case amongst the political elite, especially the large coalition of progressive politicians, industrialists, and the leadership of the Brazilian Communist Party. This coalition fostered a project of progress in which the idea of a national project of development occupied a central place. Brasília, as the epitome of an

architectural and a political imagination, materialized the encounter of this artistic and this political imaginations in the 1950s (Epstein 1973; Holston 1989; Williams 2007).

Astute foreign visitors usually noticed the centrality of “design” in Brazilian political and intellectual life—a true “cultural dominant” (Jameson 1984, 1992) that articulated several different practices and discourses in art and politics. The German architect, designer, and semiotician Max Bense, who visited Brazil several times in the 1960s and had an impressive presence in several Brazilian intellectual circles, noticed this when he observed that:

For the Brazilian intelligentsia, design—as a modality of the external configuration of the world situated between technical constructivity, artistic conception, and industrial production—represents an essential part of the idea of a future civilization.... One can join conversations in Rio, São Paulo or Brasília in which the idea of design emerges as the dialectical substitute of that which in Europe we call historical consciousness. (Bense 2009:30)

The ubiquity of the master frame of “design” is not a uniquely Brazilian phenomenon, to be sure. A program centered on a heroic notion of design is associated with the architectural avant-garde in several different contexts. In this broadly defined ideology, design is imbued with a historical mission of social reform or salvation (Day 2012; Tafuri 1979). In 1960s Brazil, particularly in São Paulo, the ideology of design provided a field-specific form to a political repertoire that associated modernization with industrialization and the social question with the national question. The semio-material practices of architecture centered on *design* allow for the association between an architectural and a political avant-garde, even if this association remains mostly an idea and never becomes a fully accomplished project.³⁵ The architect João Vilanova Artigas, the main formulator of those discourses, described design

³⁵ In contrast with other areas of cultural production, the dissolution of such a constellation did not happen suddenly with the military coup of 1964, which instituted an authoritarian regime that would last the following two decades. Some elements of that repertoire remained alive during the military regime, particularly the desire to participate in a national project of industrialization, as I show in chapters 5 and 6.

both as the conciliation of art and technique and as the materialization of an intentionality that could find meaning only in the history of national development (Artigas 1981:43).

During the 1950s and the 1960s, the struggle to establish a semiautonomous field of (modern) architecture found expression in a formal experimentalism that tried to explore the “bourgeois single-family home” as the site for technical and political innovation. That process occurred simultaneously with the emergence of discourses and small-scale attempts to promote the industrialization of construction—the only solution to the urgent need of housing in Brazil’s booming cities, according to the dominant discourses at the time. I argue that the political and technical problem posed by the urban and social questions was directly affected by the formation of the local architectural field. This field provides principles of conversion (Bourdieu 1996; Panofsky 1976) between progressive political repertoires that dominated the Brazilian intelligentsia of the time and the production of part of the built environment—that small fraction of buildings that retained the highest symbolic and political value.

Field history and sectors³⁶

Until the 1940s, academic training in architecture in Brazil was divided between two traditions, both influenced by European schools: the Beaux-Arts and the Polytechnique

³⁶ In this chapter, I treat the practice of architecture in São Paulo as well as the institutions and individuals involved in this practice as a field, and not as a subfield of the Brazilian field of architecture. As I will mention later, the profession of architecture was regulated at the federal level since the 1930s, so it would be accurate to say that the field of architecture has a national—and not local—dimension. Nevertheless, my methodological choice of treating the practice of architecture in São Paulo as a relatively autonomous field is justified by a series of symbolic, institutional, and personal dynamics that I emphasize throughout this chapter—especially the connection between the architects trained in São Paulo and the city, the existence of semiautonomous journals and professional associations relatively independent from the national institutions that organized and regularized the profession, and the continuous attempt of São Paulo architects to deepen their autonomy regarding the type of practice and the political commitments of Rio de Janeiro architects. Also, treating the practice of architecture in São Paulo as a field (and not a subfield) allows me to highlight what is empirically relevant in this dissertation, that is, the emerging conceptions of low-income housing as a political problem that progressive architects in São Paulo felt compelled to address since the 1950s.

traditions. The first took place in art schools, especially the Academia Imperial de Belas Artes (Imperial Academy of Beaux-Arts), in Rio de Janeiro, which was founded in 1816 by the emperor of Portugal as an attempt to foster the teaching of classical European art—architecture included—in the colony (Durand 1989; Lopes and Lira 2013b). Despite its role in promoting the architectural language of classicism in Brazil, which is still visible in some preserved central neighborhoods in different cities, particularly in Rio de Janeiro, the Beaux-Arts training focused mostly on stylistic matters, neglecting the most practical and material aspects of architectural production (Lopes and Lira 2013a:22). Simultaneously, a few schools of engineering—such as the Escola Politécnica (Polytechnic School) of the University of São Paulo and Mackenzie University—trained some of its student in the practices of construction. This division between architecture as style and the material practices of construction deeply influenced the early stages of the constitution of the architectural field in Brazil.

The profession was regulated in 1933 only through a federal law (no. 23569) that also established the parameters for other professions, such as engineering and agronomy. The first school of architecture was created in 1930, in the state of Minas Gerais (Segawa 1999:130), but academic training in architecture became consolidated only with the creation of the Faculdade Nacional de Arquitetura (National School of Architecture) in Rio de Janeiro, in 1945. Several Brazilian architects in the early 1940s raised the need to establish a specific university-level training in architecture, an opinion loudly voiced by professionals at the First Brazilian Congress of Architects in 1944 (Editoria Caramelo 1992). In São Paulo, the first two schools of architecture were created in 1947 (Mackenzie School of Architecture—FAU-Mackenzie) and 1948 (University of São Paulo School of Architecture and Urbanism—FAU-USP). A few other schools were created during that decade in other capital cities, such as

Porto Alegre and Salvador but in most cases still within schools of Beaux-Arts and architecture—a situation that perdured until the late 1950s (Segawa 1999:130).

The teaching of architecture in these two institutions in São Paulo materialized the division between the “academic,” or classical tradition—mostly represented by Mackenzie under the leadership of the architect Christiano Stockler das Neves—and the polytechnical tradition of FAU-USP, where modern architecture also had a warmer reception (Dedecca 2012b). Some of the professors at FAU-USP were architects from Rio who had already been influenced by the modernist architecture of Oscar Niemeyer and Lucio Costa (the director of the National School of Architecture who would later create Brasília’s master plan).

The modernist and technical tradition was also strengthened in São Paulo with the creation of the Instituto de Arquitetos do Brasil (Brazil’s Institute of Architects—IAB) in 1943, which was dominated from the beginning by eclectic or modernist architects, such as Eduardo Kneese de Mello, Rino Levi, and the young João Vilanova Artigas. IAB, situated a few blocks from both schools of architecture and surrounded by some of the most important architecture offices of the time, was a crucial center of socialization for young architects and students in late 1940s and early 1950s (Dedecca 2012b), almost as significant as the schools themselves. For many Mackenzie students with modernist inclinations, such as Paulo Mendes da Rocha, Jorge Wilhelm, Pedro Paulo Saraiva, and Carlos Millan—all of whom would become key architects in São Paulo in the 1960s and 1970s—IAB was a space of resistance against the academic predilections of Christiano Stockler (image 3) (Maitrejean 2008; Mendes da Rocha 2006).



Image 3. Julio Prestes Station, 1926, Christiano Stockler das Neves. Source: Wikimedia Commons.

The creators and first directors of IAB in São Paulo—such as Levi, Kneese de Mello, Ícaro de Mello Castro, and Oswaldo Brake—were born between 1901 and 1913 and were all trained in one of the two available traditions at the time. Some of them, such as Kneese de Mello, began their careers as academic or eclectic architects and slowly became acquainted with the visual and constructive language of modernism and with its associated ethical discourses, which emphasized the role of architecture in reforming society and promoting social progress. The “conversion” to modernism for many of these architects began in the late 1920s and early 1930s, particularly after visits to Europe—Levi, for example, studied in Italy and worked with the Ukrainian architect Gregori Warchavchik, who designed what is recognized as the first modernist house in São Paulo, Casa Modernista, in 1927 (Lira 2011).

The dissemination of the architecture produced by the Rio de Janeiro School starting in the early 1930s also played a key role in the solidification of this tradition in São Paulo.

Many of these architects were also helping to define the parameters for academic and professional training of a new generation of architects who, for the first time, would be educated in schools of architecture in Brazil. In 1957, Artigas, Levi, Hélio Duarte, and Abelardo de Souza, all of them IAB directors during the 1940s and 1950s, led a commission that reformed the curriculum at FAU-USP in 1962. This process, which represented an attempt to deepen the autonomy of the field, was met with serious resistance from professors associated with the Polytechnic School. In this reform, which had Artigas as a central proponent, design classes provided the backbone of the entire curriculum, sided by an increasing number of artistic classes and a decreasing number of technical classes during the five years of training (Segawa 1999:146). During the same period, Artigas wrote a series of essays on the topic of design. In these writings, he combined his view of the centrality of the practice of design in architecture with a social concern for the role of planning in the development of the country.

João Vilanova Artigas (1915–1985) is a central figure in the transition from this pioneer generation of architects, who first instilled the language of modernism and helped to establish the initial contours of the field in São Paulo, to the generation born between the mid-1920s and early 1930s—such as Paulo Mendes da Rocha (1928–), Carlos Millan (1927–1964), Jorge Wilhelm (1928–2014), and Pedro Paulo de Melo Saraiva (1933–) (Penteado 2004). This was the first cohort trained in schools of architecture, and they would help to consolidate this repertoire in the following decades.

The process of consolidation of a modernist repertoire of design and construction in São Paulo coincides with the autonomization of the field of architecture. Actually, they are analytically connected: the dissemination of the modernist practices of design, its visual language, and its related discourses were instruments for the autonomization of the field. While the first generation of modernist architects also commonly worked as developers (Carvalho e Silva 2013), the second generation could focus mostly on the work of designing buildings.

To be sure, not every key member of this field-in-the-making falls neatly within this genealogy, since the field was relatively open to “outsiders.” Oscar Niemeyer, for example, is the central name of the so-called Rio de Janeiro School, but he designed some of the key buildings in São Paulo in the 1950s, such as the Copan apartment building (image 4) and Parque do Ibirapuera—the most important park and a key symbol of modernity in the city (Arruda 2001).



Image 4. Copan, Oscar Niemeyer, 1952-1966. Source: Wally Gobetz (no changes), available at <https://www.flickr.com/photos/wallyg/7681644620>.

An even more important case is the Italian-born architect Lina Bo Bardi, one of the most important exponents of Brazilian (and São Paulo) architecture in the twentieth century. Despite having been trained in Europe in a classicist tradition, she became profoundly interested in Brazilian popular culture during her years living in the Brazilian northeast—the least developed of all Brazilian regions, with a rich and diverse traditions of popular cultural production. Bo Bardi created an architecture that has strong connections with the type of brutalism that was developed in São Paulo from the 1950s to the 1970s, despite the fact that she never became fully incorporated into the field—for example, she was never elected to the local chapter of IAB, and her presence in the pages of *Acrópole*, the leading architectural journal that publicized the main tendencies, works, and debates of São Paulo architecture until the early 1970s, is very limited.³⁷ Despite this peculiar form of insertion in the field, Bo Bardi played a key role in defining the language of brutalism, particularly with her iconic Museu de Arte Moderna de São Paulo (São Paulo Museum of Art—MASP) (image 5), designed in 1968, one of the most noteworthy buildings in the city.

³⁷ She is one of the creators and editors of another influential journal dedicated to the discussion of art and architecture in the city, *Habitat*.



Image 5. São Paulo Museum of Art, Lina Bo Bardi, 1968. Source: Hugo Segawa, 1978, FAU-USP archives.

If the avant-garde modernists constituted the dominant sector in the field of architecture in the 1950s in their initial struggle against academic architecture (see also Corona 1963:246), a commercial architecture boomed during the same period and attracted the majority of architects during the 1960s, most of whom would work for large developers and real estate companies. The division of a cultural field in accordance with two principles of consecration, one dominated by the market and the other one by the attempt to dissociate from it, is a very common dynamic in cultural fields—one that has been thoroughly analyzed by Bourdieu and other scholars in the field approach (Bourdieu 1990, 1996, 2013; Büyükokutan 2011; Lipstadt 2003). In the case of architecture in São Paulo, this division became radically politicized in the 1960s, a moment when the field had a higher level of autonomy from

engineering and was more independent from the state compared with the architecture of Rio (Bastos 2003; Bastos and Zein 2010). Nevertheless, the economic and demographic growth of São Paulo was accompanied by the establishment of a highly developed real estate market, which would grow even more during the late 1960s and 1970s, when the federal government would pour considerable resources into the construction industry via the Banco Nacional de Habitação (National Housing Bank—BNH), much of which would be channeled to the construction of apartment buildings for the growing middle class (Maricato 1987).

In this sense, if in the 1950s and early 1960s the field had a culturally dominant sector (modernist architecture) and a declining sector (academic architecture), in the 1960s it was mostly divided between the still culturally dominant sector of “liberal” professionals working in small offices and “drawing board architects” (in the slightly critical fashion in which the dominant sector described them) working in large firms (figure 3). In the discourses that emanated from the first sector—which dominated almost entirely the academic historiography and critique of architecture in São Paulo—the commercial sector was associated with land speculation, while the dominant sector had a continuous concern for the social function of architecture (Artigas 1989).³⁸

³⁸ As Carvalho e Silva notes, “If, until the late 1940s, architecture was an activity mostly associated with engineering, construction, and the real estate market—due to the communion of professional attributions, the training of architects and engineers, and the expansion of real estate businesses—with the creation of autonomous schools of architecture, the affirmation of modern architecture, the worsening of urban problems, and the stress on the social function of architecture, architects, especially those who dominated the system of consecration of the field in São Paulo..., attempted to assume a liberal profile in which design was their only professional attribution” (Carvalho e Silva 2013:247).

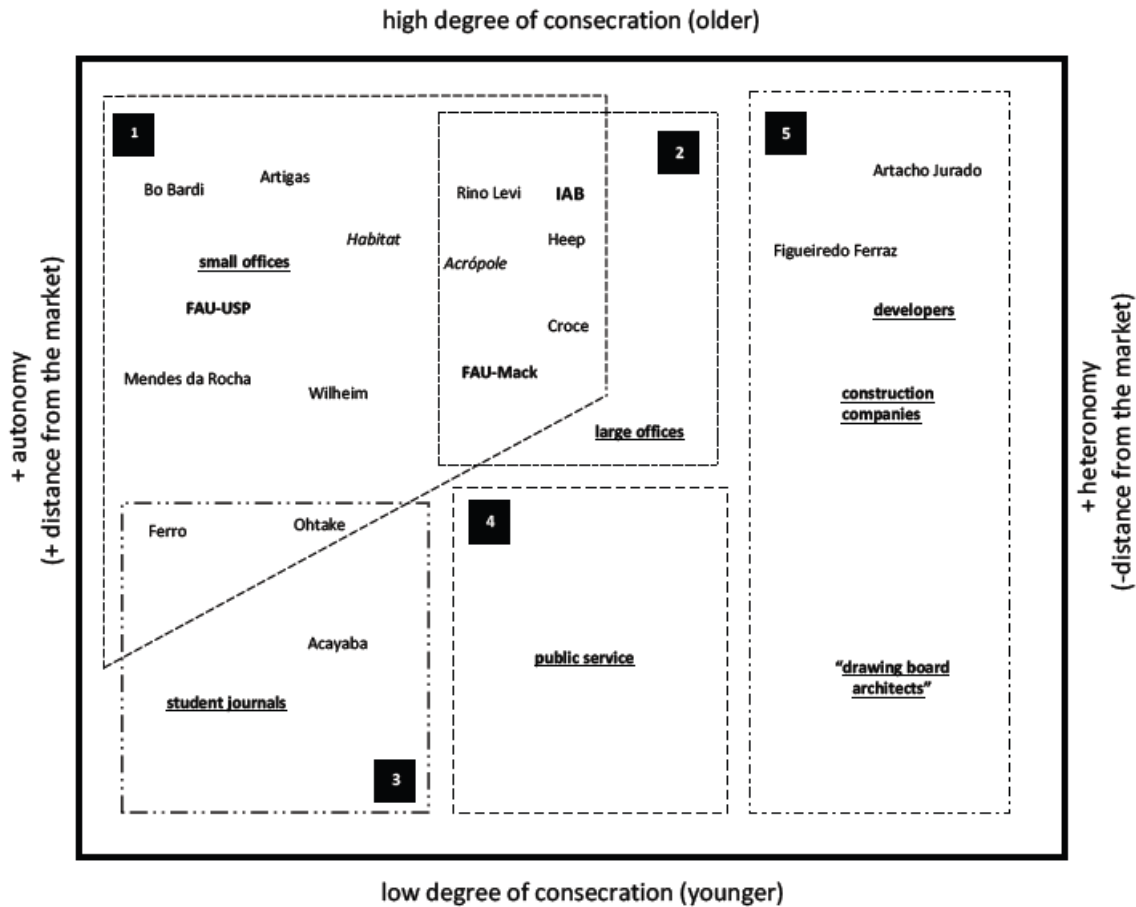


Figure 3. The field of architecture in the early 1960s in São Paulo.

Figure 3 shows the structure of the field of architecture in São Paulo in the early 1960s, a period when the most important elements of the architectural repertoire commonly associated with the architecture of São Paulo were being developed and tested. The diagram maps the space of positions in the field along the dimensions of degree of autonomy (horizontal axis) and degree of consecration, commonly associated with age and prominence in that sector of the field (vertical axis). In order to simplify the space of positions, I identified 5 distinct sectors. Although some architects can be analytically placed in a position, it is

important to note that architects often occupied different positions depending on the stage of their careers, on the availability of attractive or profitable commissions, or other contextual circumstances. Nevertheless, they rarely oscillated between positions on the extremes of the field—for example, between the most radical autonomous positions mapped on the left of the diagram and positions prominently associated with the real estate market, situated on the far right side.

Sector 1 corresponds to the culturally dominant architecture produced in the period, most commonly associated with a local reading of brutalism, as I show in chapter 4. Architects in the upper levels of this sector were pioneers in the establishment of modern architecture in São Paulo. Many of them were associated with the creation of important institutions, such as the IAB and FAU-USP. They tended to work in small offices composed by that architect and few younger assistants or partners, and the most important works of this sectors often occupied the pages of architecture journals, especially *Acrópole*. The majority of the projects developed in this sector were single-family houses designed for upper-class families or important (although rare) public buildings. Being a faculty at one of the two schools of architecture (particularly FAU-USP) or participating in the jury of competitions or in the editorial committees of *Acrópole* or *Habitat* were also frequently associated with this sector.

This dominant, autonomous sector partially intersects with two others. Sector 2 corresponds to the space occupied by consecrated architects (such as Rino Levi and Plinio Croce) who worked in larger architecture offices. These architects and firms designed several of the most celebrated apartment buildings at the time, as well as commercial and occasional public buildings. Some of the most distinguished architects that often occupied this sector

became strongly associated with the identity of the culturally dominant sector, although their architecture, albeit modern, tended to guard a certain distance from the main elements of brutalism.

Sector 3 represents the sector occupied by young architects or students who were being socialized in the field at the time—some of whom radicalized the repertoire of brutalism in the mid- and late-1960s.³⁹ Many architects in this sector also occupied positions in sector 4, that is, they frequently worked for the local or state government in the design and construction of public infrastructure and buildings or as assistants of more prestigious architects of the culturally dominant sector.

Sector 5 is the one more directly associated with the real estate market—the main political and architectural nemesis of architects and institutions that occupy sector 1. It corresponds to the position of architects associated with large construction firms or developers. Some of the characteristic occupiers of positions in this sector of the field were trained as engineers and seldom had their works recognized by some of the most important publications of the field. The case of João Artacho Jurado, a self-trained architect who designed and developed a large number of buildings in São Paulo in the 1940s and 1950s, shows the mechanisms of field boundary making in operation. Jurado, despite his popularity within certain sectors of the city's middle and upper classes, was not socialized in the field's dominant circle. Also, he practiced an architecture that was distant from the repertoire of the dominant sector: a combination of modern, academic, art nouveau, and art deco in stark contrast to the sober architecture associated with dominant architects. The journals that published the works of the most respected members of the field, such as *Acrópole* and *Habitat*, were almost completely silent about his work, which would be recognized only after

³⁹ Such as Sérgio Ferro and the other architects of “Arquitetura Nova,” as I show in chapter 6.

the 1980s, when the new trends associated with postmodernism became fashionable in certain sectors of the field (Franco 2007).

As a methodological note, I should point out that the cultural dominance of the avant-garde sector is easily noticeable to any researcher—in stark contrast to its limited presence in the material tissue of the city. This sector controlled the most important spaces of consecration until the late 1960s (and, in many aspects, even today): IAB (Dedecca 2012b), the faculty of FAU-USP (Dedecca 2012a; Editoria Caramelo 1992; Zein 2005), the editorial board of *Acrópole* (de Almeida 2008), and the organizing committees of major architecture exhibitions (Lins 2008). For this reason, it has a much larger presence in the archives as well as in all forms of official discourses and preserved memory. While canonical buildings are a tiny minority, the activity of these leading architects left a much larger historical trace in the archives. That said, the study of this dominant sector is indeed crucial to explaining how certain design and constructive practices mediated the relationship between the progressive political repertoire that circulated at the time among the intelligentsia and the built works produced then, particularly in the area of social housing—the main topic of this dissertation.

If this dominant sector had relatively advanced autonomy with respect to the largest segments of the real estate market, particularly owing to its association with a segment of the enlightened local bourgeoisie that was its main client, its association with the state is also crucial to the development of the semio-material practices of design and construction associated with São Paulo brutalism. That was a relationship that initially aided its development but eventually hindered it in some violent ways, particularly under the military dictatorship (1964–1985).

The quest for autonomy

Scholars who have utilized the field approach to make sense of architectural practice in different contexts have commonly pointed out that the concepts elaborated by Bourdieu in the analysis of literary (Bourdieu 1996), philosophical (Bourdieu 1991), or economic fields (Bourdieu 2005) need considerable reelaboration when one proceeds to analyze the field of architecture (Jones 2011; Lipstadt 2003; Stevens 2002). The problem is not that architects do not struggle in order to establish the field as semiautonomous from other fields of practice, such as engineering, the arts, the state, or the market. It is true that, in comparison with other cultural practices—particularly literature, which provided the canonical case for the development of Bourdieu’s approach—architecture is more dependent on the mobilization of large amounts of resources. The reliance on these financial, material, and human resources severely limits the autonomy of the practice of architecture, even in the most avant-garde sectors of the field.

But there is a second aspect of the problem of architectural autonomy that has been less explored by scholars,⁴⁰ which relates to the multiple passages between material and “nonmaterial” (or less properly material work) work involved in the production of architectural objects. The process of relative autonomization of architecture involved the distancing of its practitioners from the material production of the built environment and an emphasis on the moment of design as a set of practices that would define the field: its culture, modes of consecration, training, and so on. It is important to point out that the history of the constitution of architecture—both in Brazil, during the nineteenth and twentieth centuries, and in the West more broadly—involved the struggle to separate the practices of design from the

⁴⁰ Lipstadt (2003) is an exception.

material concretization of built works. In this sense, the cultural history of architecture as a field cannot be separated from a social history of labor and from the cultural history of materiality.⁴¹

As I briefly mentioned earlier, architecture did not become established as a semiautonomous field in Brazil until the 1950s. Before that, most practitioners of architecture were trained either as engineers (particularly in São Paulo) or as artists in the tradition of the European Beaux-Arts (especially in Rio de Janeiro). But even more commonly, from the mid-nineteenth century until the 1940s, the work of designing and building, when performed by professionals, was mostly conducted by traditional “construction masters.” Construction practitioners, many of whom were recent European immigrants, designed and built most middle-class houses in São Paulo from the 1890s to the 1940s, using traditional European techniques of construction, usually in an eclectic style (Ferro 2010; Pareto Jr 2013:67–8; Reis Filho 1970). This type of craft, with origins in European traditions of construction and practical training, also helps to explain the semiclassicalist, mostly eclectic style of traditional neighborhoods in downtown São Paulo (image 6) (Ferro 2010; Lopes and Lira 2013b).

⁴¹ As I explore in chapter 6, this historiographical critique became part of the discussions in the field of architecture in Brazil with Sérgio Ferro’s writings in the 1960s and 1970s (Ferro 2006, 2010)



Image 6. Eclectic houses, downtown São Paulo, Barra Funda. Source: Dulce Soares, 1977, Instituto Moreira Salles.

Therefore, in order to establish architecture as a semiautonomous field, it was necessary to institute criteria of differentiation between architects and these construction professionals (“práticos licenciados,” in the official designation). These builders, many of whom had a large clientele and enjoyed the respect of the local middle and upper classes, usually had no higher education, although the state granted them licenses to perform the work of designing and building. A first official assault against these professionals was the approval of national law no. 4793, which required professionals to have five years of experience in order for the state to grant them a license. With the regulation of the professions of engineering and architecture in 1933, there was a further constraint on the activity of these builders, since the law established the requirement of a degree in order to exercise that same type of work. Besides, this legal strategy of disqualification of manual work was also

accompanied by the development and diffusion of a technical language of modern architecture, with the introduction of plans, designs, blueprints, elevations, and spreadsheets onto the construction site (Santos 2013:171). The advancement of this new semio-material apparatus of design, planning, and construction provided new symbolic and material constraints to the activity of these professional builders.

In this process, the introduction of concrete as the primordial modern construction material was both a response to the international modernist fashion and a resource in the process of separation of design and execution, adding a further step in the disqualification of the work of traditional builders. Concrete was introduced in Brazil as a “scientific” material, one that should be manipulated in accordance with rigid specifications in which only engineers and architects were experts (Santos 2013:169). It was first used in São Paulo in the construction of larger projects of urban infrastructure, such as energy and transport, in an association between foreign construction companies and the state government (Schenkman 2013:137), but later it became the key material (and technology) involved in the process of producing a national architecture and engineering (Santos 2013). This is one of the first reasons, although it was certainly not the most definitive one, for the emergence of the use of concrete as the crucial element in the semio-material practices that would later characterize the dominant architecture of São Paulo—a real dogma according to some critics (Ferro 1986; Penteadó 2004).

Concrete, as a semiotically flexible material (Virilio 1997), seems particularly relevant for this task of labor stratification. Although the modern technology of concrete construction emerged from the combination of scientific and artisanal techniques, its use by modern architects and engineers gradually imbued the material with a modern aura, even after its

dissemination in different social and geographic contexts where it became associated with traditional practices of construction—self-building and vernacular architecture included. In other words, concrete “became” modern. As with any other technology or ensemble of practices, its modernity is the consequence of cultural elaboration and not an intrinsic attribute of the material or the technique itself. Forty, in his thoughtful cultural history of concrete, argues that “it was possible, with concrete construction, to detach the skilled, mental work of building from the purely manual element. The opportunities provided by concrete for such a division of labour is what really distinguished concrete and made it uniquely different from all other construction processes in labour terms. No other means of construction allowed such a satisfactory separation of the mental from the manual elements of labour” (Forty 2012:232).

Concrete construction, as an assemblage of semio-material practices, served to reinforce the autonomy of the field of architecture in Brazil and particularly in São Paulo, also helping to define the doxa of this field at least until the 1970s. This is a particularly relevant case of the field embeddedness of repertoires of semio-material practices and of the materiality of the field itself. At the same time, although reinforced concrete construction demands technical knowledge, the construction itself is almost manual in many of its aspects—a low-skill craft that helps to explain the dissemination of concrete as a material and concrete construction as a technique worldwide.

This low-skill aspect of concrete construction, or at least of its final casting in the construction site, was also relevant in the context of São Paulo urbanization, where a large segment of the incoming working class had limited technical skills and received low wages. Work in the construction industry was one of the primary forms of employment for recent migrants in the city, most of whom had no previous technical training in construction. The

majority of the recent migrants in the 1950s and 1960s had previous experience working only in agriculture.

The process of autonomization of architecture, through legal and semio-material practices, has a special place in the history of urban and professional stratification of Brazil during the first half of the twentieth century. This is a period of complexification of Brazilian urban society, with important steps in the constitution of an urban working class—a class of which construction workers would constitute a large share (Monegatto 2013:83). For many of these workers, experience in the construction industry—the sector that absorbed the majority of this working force—served as a kind of “internship” before they could find a job in other industrial sectors with higher wages (Fontes 2008:64–5).⁴² The training of these workers was usually done at the construction site itself (Farah 1996:87). In this milieu, the figure of the master builder—at the same time a worker and a professional—blurred the lines between workers and professionals or between the working and the intellectualized middle class. The master builder was a problematic, in-between figure, since he did not participate in the dynamics of consecration that were being established as the field gained autonomy and did not usually possess the cultural capital that the local bourgeoisie began to value with the development of the university system in São Paulo after the 1930s.

After this first phase, architects had a second important group from which they had to differentiate themselves professional, symbolically, and practically: engineers. In São Paulo, that entailed a certain kind of patricide, given the academic origins of the field of architecture in the city and the previous academic training of some main agents of that autonomization process themselves—many of them engineers, such as Artigas himself. Besides, the 1933 law

⁴² This reality applied only to men. In the case of women, domestic work was the most common form of employment in the period, a situation that was aggravated by the crisis of the textile industry in the 1950s and 1960s, the only industrial sector that employed a sizable number of women (Fontes 2008:66).

that regulated both professions conflated many of their professional attributions: most activities of study, design, planning, construction, urbanization, among others, could also be performed by engineers (Carvalho e Silva 2013:230). From the 1930s to the 1950s, this conflation deeply affected the work of architects, many of whom opened their own companies that engaged in both designing and building.

This process of symbolic separation remained fragile for decades, despite the growing autonomization of the field, based on the principle of the primacy of design in the process of the production of the built environment and the centrality of design in the training, socialization, and consecration of architects. Artigas, summarizing this symbolic work of autonomization, argued that “until now, despite all the victories and all the effort, society still sees us as a mere specialization of engineering, subordinated to the construction industry. No civilized country accepts this confusion” (Artigas 1981:22).

The continuous attempt to establish autonomy from engineers, particularly advanced by the dominant sector of the emerging field in the 1940s and 1950s, is deeply connected to an internal dispute in the field, which I previously mentioned: the separation between the culturally dominant, avant-garde sector and the commercial sector. Many interventions by prominent architects in public debates at the time—and, again, Artigas is the key voice—stressed⁴³ the deep divide between the “immoral” forces of capital, which were in frank expansion in the city at the time, and the civilizational role of architects: “The architect is not a professional of the construction industry, an appendix of a constraining and terrible machine. On the contrary, it is our duty to help dominate and control this blocking structure that transforms the man into a thing, into a victim of its own creature” (Artigas 1981:38).

⁴³ Or, more properly, fostered the “illusio” of this separation, in Bourdieu’s terminology.

The market was allegedly the realm of speculation and vice, served by engineers and “drawing board” architects with little consciousness of the role of architecture in the constitution of a civilized nation (Carvalho e Silva 2013:243). In order for architecture to avoid this “contamination,” the dominant sector of the field elaborated a set of semio-material practices that had design at its core and proposed a separation between the work of design and construction. The visual and constructive language of modernism—a repertoire that large segments of the elite repudiated—was both a reason for pride and an instrument for reaching a certain autonomy from the market.⁴⁴

The semio-material practices centered on design that became the dominant repertoire in São Paulo in the 1950s and 1960s disseminated an image of the architect as a creator of spaces and forms that should reflect a critical stance on society. These semio-material practices worked as a kind of translation machine that combined local readings of national and international trends, the political language of national development, and the practices of design and construction present in the field. In order to fully develop this stance, the dominant sector of the field in São Paulo also had to come to terms, even if tentatively, with two “others,” both challenging and, at times, stimulating: the dominant national architecture until the late 1950s, that is, the Escola Carioca (Rio de Janeiro School of Architecture) and the state, which offered both new opportunities for the activities of architects and threats to the autonomy of the field.

Architects in São Paulo always had an ambiguous relationship with their “Carioca” counterparts, who established the parameters of what it meant to make good architecture in Brazil from the 1930s until at least the late 1950s (Dedecca 2012a). In this sense, the relative

⁴⁴ That was a more effective strategy until the 1960s, when the language of modernism, even in its less elaborated forms and associated with vernacular readings, become widespread even among the lower middle classes (Lara 2008).

autonomy of the field of architecture in São Paulo is not simply an analytical problem; it was also a problem for the actors involved in its establishment. The Carioca School had achieved its reputation in the 1930s and 1940s, with canonical works such as the Ministry of Education in Rio de Janeiro—designed by Lucio Costa, Niemeyer, and Affonso Reidy in partnership with Le Corbusier—and the Pampulha complex in Belo Horizonte, designed by Niemeyer in his first important partnership with then mayor Juscelino Kubitschek, who would later commission the construction of Brasília (1956–1960) as president.

The international recognition of that school is not restricted to Brazil; the positive international reception of Brazilian architecture in the first two decades after the Second World War is also noticeable. New buildings designed by Brazilian architects had a common presence on the pages of acclaimed publications such as *L'Architecture d'aujourd'hui*, and the 1942 Museum of Modern Art exhibit *Brazil Builds* (Goodwin 1943; Mindlin 2000) consecrated the new modernist Brazilian architecture on the international scene. Also, politically, the association between the political and aesthetic language of modernism and the national political landscape was particularly emphasized during the government of Kubitschek (1956–1961), the “developmentalist” president who promised that Brazil would advance “50 years in 5” during his presidency. The association of Kubitschek’s “desenvolvimentismo” and Costa and Niemeyer’s “modernismo” is epitomized in the construction of Brasília—the high-modernist metropolis built from scratch, one of the most important and controversial architectural accomplishments of the last century (Holston 1989; Williams 2009) (image 7).⁴⁵

⁴⁵ The critique and historiography of architecture helped to consolidate this connection between the architecture of the Rio de Janeiro School and the construction of the nation (Bruand 1981). This connection was so vividly experienced at the time in Brazilian architecture—and culture, more generally—that only recently has historiography been able to point out the limits of such a narrative.



Image 7. Construction of Brasília, National Congress. Source: Marcel Gautherot, ca. 1959, Instituto Moreira Salles.

But by the late 1950s and the early 1960s, a moment that combined a more developed autonomy of the field of architecture in São Paulo and a national political radicalization, the architecture of the Carioca School had already accumulated a great deal of criticism. The field suffered from some sort of “post-Brasília” blues, despite the celebratory reception of the new capital and its radical modernist experimentation by large segments of the Brazilian cultural elite (Epstein 1973; Pedrosa 1981). If the political critique of that architecture led to the inflation of the problem of housing in the discourses of architects from São Paulo, as I

elucidate later, it is possible to argue that, in terms of the materiality of its architecture and its clientele, the dominant architects attempted to foster a higher degree of autonomy from the state when compared with their colleagues from Rio and to develop a constructive brutalist language that drastically broke with the sensual and curvy architecture of Niemeyer. Artigas, despite having avoided this polemic during most of his career, would point in a late reflection to what he considered his work of architectural invention:

I created some personal ways of deploying the architectural wisdom, ways of making, of building, I created a peculiar relationship between architecture and the house. So the things that Oscar [Niemeyer] makes are not the same as the ones that I accomplished. There is a São Paulo architecture [“arquitetura paulista”] that stems from my participation. (Artigas 1989)

Regarding the state, it is important to note that this is an ambiguous relationship, and autonomy from the state never acquired the symbolic weight that autonomy from the market had in the discourses of the period. The historiography overwhelmingly points out that there was very limited space in São Paulo for cooperation between architects and the state, which commissioned very few architects in the city to design public buildings—with some noticeable exceptions, particularly during Carlos Carvalho Pinto’s term as governor (1959–1963).

One very consequential dimension of this autonomy from the state was the “choice” of bourgeois families as the preferred clientele. The bourgeois house, particularly the houses of intellectuals and highly educated wealthy families, was the primary site of development of the architecture of São Paulo (Acayaba 1985, 1986) (image 8).

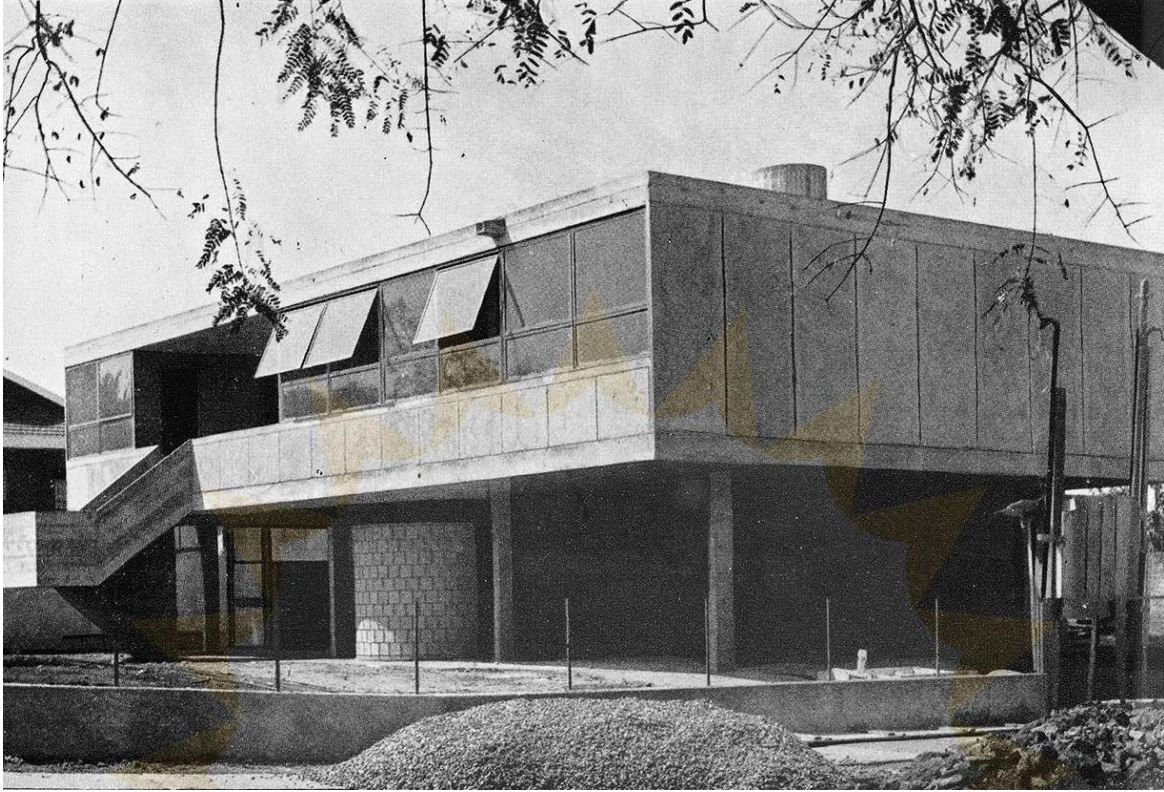


Image 8. Roberto Millan House, designed by Carlos Millan. Source: *Acrópole* no. 276, November 1961, p. 420.⁴⁶

That type of project provided a significant opportunity for autonomization of the field, since it allowed for the type of experimentation that architects of the dominant sector could explore. The consequences of the emergence of the single-family bourgeois house as the primary construct in this field are plenty, both for the development of the semio-material practices of brutalism in São Paulo and for mediation between the political repertoire of national-developmentalism and the material objects that started to spread in some of the wealthiest neighborhoods of the city from the 1940s to the 1970s.

⁴⁶ Distributed in CC, attribution BY NC ND (<http://www.acropole.fau.usp.br/edicao/276/42>)

Space of works and works in space

In order to reconstitute the field of architecture in São Paulo, it is important to recreate the space of works (Bourdieu 1996)—in this case, the main buildings that become materializations of the disputes within the field. The task is particularly challenging in the case of architecture, owing to a paradox that is largely explained by the dynamics of the field itself. As I mentioned earlier, the modernist, avant-garde sector produced canonical buildings that left a notable and lasting mark in the archives, since members of this sector also controlled the means of consecration and the mechanisms of production of historical memory. As a consequence, the reconstruction of the culturally dominant sector is a relatively easier task in comparison with the reconstruction of the “space of commercial works,” despite the dominant presence of this architecture in the landscape of São Paulo. In other words, the institutionalization of the dominant sector produced a paradox, having mostly excluded the production of the commercial sector from the discursivity of the field, despite its incredible growth and dominant presence in the city landscape, particularly after the 1960s. But given my concerns in this research and the limitation of the archives—which, contrary to the experience of living in São Paulo and the practices of the majority of the architects who, starting in the 1960s, ended up working for real estate companies and large commercial architecture firms—the reconstruction of the dominant sector suffices, since this is the pole where the problem of the connection between architecture and the political was being more consciously advanced.

I used two sources in order to recreate the dominant field from the first manifestations of modernist architecture in São Paulo until the 1970s. The first one is a very influential book published in 1983 that catalogues modernist production in São Paulo from the late 1920s to

the mid-1970s (Xavier, Lemos, and Corona 1983). This is a very important publication for our purposes, since its authors are key figures who participated in some of the central institutions of consecration in the field. Eduardo Corona was the editor of the leading architectural journal that publicized modernist production in São Paulo, *Acrópole*, as well as a professor at FAU-USP. Carlos Lemos was also a professor at FAU-USP and the director of Oscar Niemeyer's office in São Paulo, having worked with him in designing Parque do Ibirapuera (Lemos 2000). Alberto Xavier was a professor at FAU-USP and later at the University of Brasília, having edited some of the canonical works about Brazilian modern architecture (Xavier 2003, 2007). Therefore, this catalogue works as a synthetic instrument of "canon making," one that summarizes many other of these instruments and institutions. Also, as the second source, I noted all the architects who had special issues at *Acrópole* during that period (see appendix 1).

My experience in the archives makes me confident that this list of architects and works defines the limits of the dominant sector, since it also has a strong correspondence with other instruments of consecration and "canon making," such as positions in the faculty of the two schools of architecture in the city (particularly FAU-USP), participation in biannual exhibitions of architecture and arts, and collaboration with some of the uncontroversially central architects, such as Vilanova Artigas (twenty works included), Rino Levi (twelve works), Plínio Croce (twelve works from his office, designed with Roberto Aflalo and Giancarlo Gasperini) and Paulo Mendes da Rocha⁴⁷ (ten works). For example, the São Paulo Biennale of 1965 dedicated its *Hors Concours* architecture exhibition to Vilanova Artigas and also awarded special prizes to Oswaldo Brake, Carlos Millan, Rino Levi, Joaquim Guedes,

⁴⁷ Mendes da Rocha, who would be the second Brazilian architect to win the Pritzker Prize (2006)—the most important international award in architecture—designed the Brazilian pavilion of Expo'70, in Japan—another sign of his centrality in Brazilian architecture at that time (*Acrópole* 1970). Niemeyer won the Pritzker in 1988.

Marcos Fragelli, and Ruy Ohtake, among others (Gonçalves 1965)—all of them represented in this catalogue.

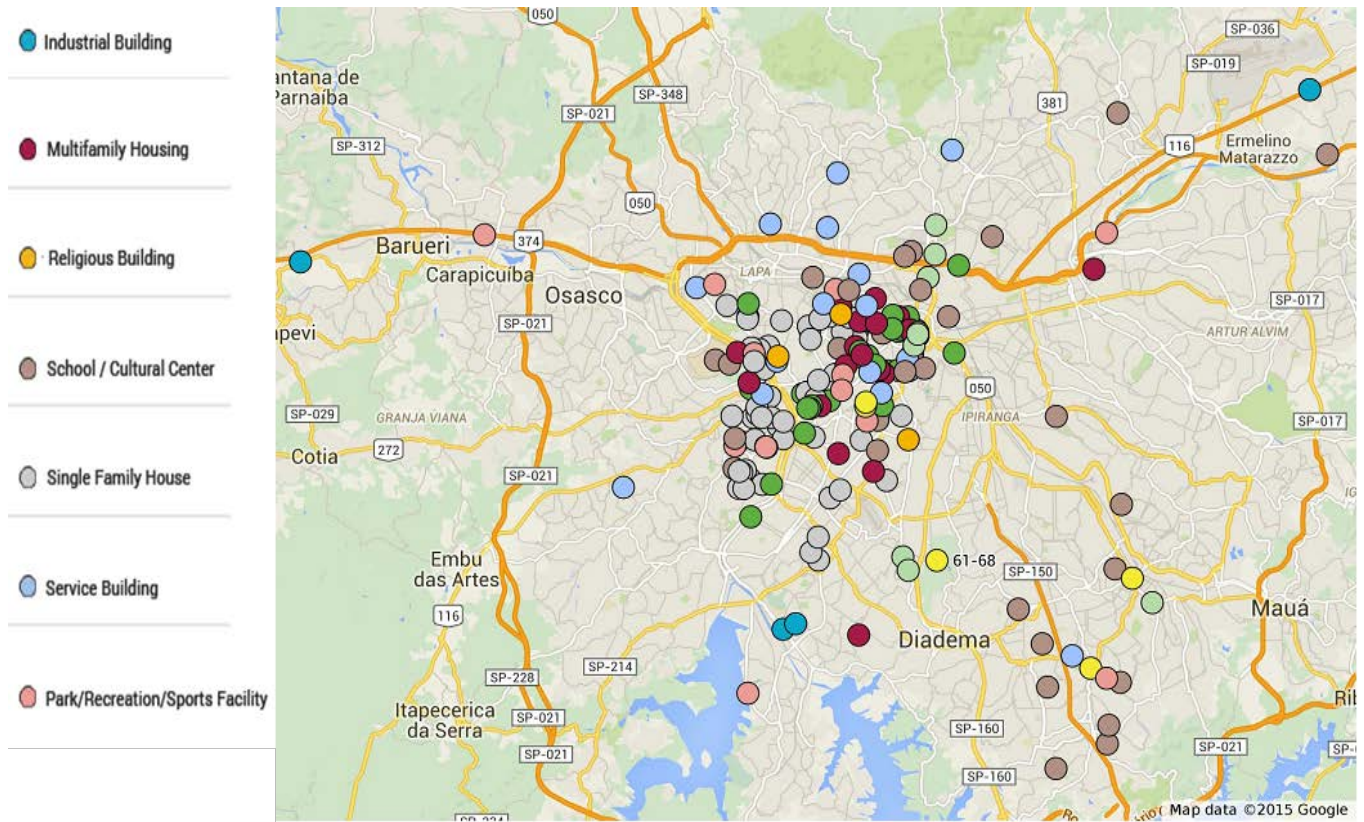
This list, like any other attempt to reconstruct a sector of a field, needs to be read with a grain of salt. First, the fact that an architect had more works included in the catalogue than a colleague is certainly not a sufficient measure of centrality. Lina Bo Bardi, for example, designed some of the most important buildings that helped to define the field in São Paulo, but owing to the fact that she did not design as many works as several of her colleagues and also given her ambiguous position in the field, having been born and trained in Italy and with significant time spent working in the Brazilian northeast—and, of course, the fact that she is one of the only women in a field dominated by men—she had only three of her works included in the book. Also, this list ended up including architects who were not part of the socialization of the field in São Paulo—such as Oscar Niemeyer and such foreign architects as Bernard Rudofsky—but who designed some of the most important buildings in the city.

The space of producers (appendix 1) has to be complemented by the space of works (appendix 2)—in this case, both the exemplary buildings produced by this sector of the field and, just as important, their location in the city. I divided this list of works into five periods that temporally map the development of the field in São Paulo: a first *period of pioneers* (1927–1939), during which the first few attempts to establish a modernist architecture took place, on very limited scale and against the resistance of academic architecture; a *period of maturation* (1941–1950), when the main institutions that would define the field were created and the modernist repertoire gained ground in public debates and in the city; a *period of expansion* (1951–1960), when the language of brutalism was initially developed and a certain political-semiotic program took shape; a *period of maturity* (1961–1968), when the brutalist

program dominated architectural production in the city and during which political radicalization led to further elaboration of discourses about the social function of architecture; and a *period of routinization* (1969–1977), during which the political-semiotic program of brutalism was routinized and many of the institutions and key individuals from the earlier phases suffered from the persecution of the military dictatorship—especially after the issuing of Institutional Act no. 5 (AI-5), in December 1968, which expanded the authoritarian capacities of the military regime and, in the case of architecture, led to the imprisonment of important architects (such as Artigas and Sérgio Ferro) and the firing of many professors—Artigas, Mendes da Rocha, and Jon Maitrejean included.⁴⁸

Map 3 shows the spatial distribution of these buildings in the city. When compared with the social and economic geography of the city, this distribution shows a direct relationship between architectural value and average income. Most buildings are concentrated in the central region or the west of the metropolis. Those areas concentrated the majority of the upper- and middle-class families as well as the most developed urban infrastructure. Distance from the city center in São Paulo meant a decrease in average income—a characteristic of most Brazilian metropolises and possibly a mark of urbanization in most cities of the Global South (Santos 2009a).

⁴⁸ Artigas was arrested for twelve days in September 1964. Five years later, he was one of the University of São Paulo's professors who were forced to retire by a presidential decree.



Map 3. Geographic distribution of representative works (appendix 2).⁴⁹

This relationship is demonstrated in figure 4, which shows that the decrease in average family income in 1966 correlated strongly with distance from the city center. In sum, the geography of architectural distinction reinforces the geography of class and urban distinction.

⁴⁹ A more detailed map is available online at <https://www.google.com/maps/d/edit?mid=zQ9Zk2-SEWek.kQxGk4U7Vvg8>.

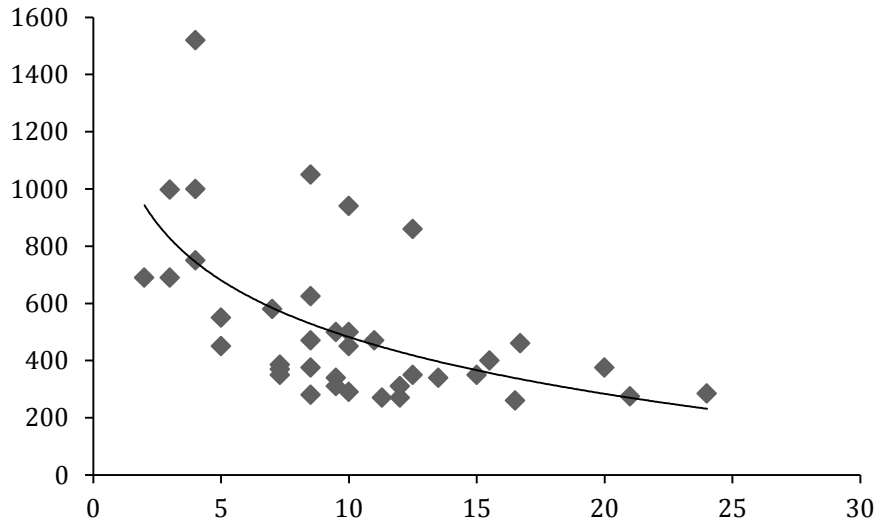


Figure 4. Relationship between monthly family income (cruzeiros) and distance from the city center (km) in São Paulo, 1966. Source: Santos (2009b:57).

This is not a flawless relationship, especially because a few upper-class neighborhoods are situated farther from the expanded downtown area, mainly in the south of the city. One particularly noticeable fact is that the eastern region of the city and the developing industrial suburbs and “dormitory towns,” the ones with the lowest average incomes historically, have very few built works included in the canon. The cross-examination of the map and the graph point to a general pattern of reinforcement of metropolis centrality, income concentration, and architectural value. A more fine-grained qualitative reading of the map and the table from which it was generated also reinforces this conclusion: the most celebrated works in the list are almost all situated in the wealthiest neighborhoods.

A progressive architecture without the urban poor?

This map—a visual representation of the relation between the hegemonic architecture of São Paulo and the city—helps to elucidate one fact that profoundly affects the connection

between architecture and the social question in São Paulo, or the limits and conditions for the development of a progressive repertoire within the field: the material existence of that architecture is deeply disconnected from the lives of the lower classes and from their characteristic forms of occupation of the city in that period.

Beside this geographic disconnect, the distance between the constructive practices and urban sociability of the urban poor is expressed in several testimonies from central architects from the period. For example, Alfredo Paesani, who presided over the São Paulo Union of Architects in 1973, expressed this state of separation:

We tried to discover what those 5 million square meters built [in 1972] without professional assistance were. Those were the houses of people who built on a plot of 50 to 100 square meters [538-1076 square feet], usually on the peripheries of the city, with no resources, by means of autoconstruction. The interference of a professional—an engineer or an architect—is immediately felt as an expense. In order to pay you, doctor, I have to give up building one extra room. (Veja 1973:86).

This enormous divide between an architecture produced by mostly progressive professionals and the life of the urban poor is very characteristic of the many materializations of modern architecture and urban planning in different contexts, as many critics have already pointed out (Tafuri 1979; Wisnik 2004). In the specific case of São Paulo, the constitution and dynamics of the field of architecture, together with the economic and political conditionings of architectural production, provide an important piece of the explanation. Until the mid-1960s, architecture was one of the most elitist professions. As I mentioned earlier, only two schools of architecture functioned in the city until the early 1970s. Moreover, the daily sociability of architects and students was spatially limited: the two schools were located very close to each other and only a few blocks from IAB, which was surrounded by the offices of some of the main architects of the period (Dedecca 2012a). But beyond the limited class origins and the

restricted sociability, it is important to note that most architects from São Paulo could not break with many tendencies among intellectuals of the period, who, in most cases, tended to see “the people” as either a mythical category that would emerge in the future as a revolutionary force or as passive spectators of a national political drama—as I show in the next chapter.⁵⁰

It is important to point out that this lack of social and material engagement with peripheral neighborhoods, as well as with housing social movements and neighborhood associations, is not simply a consequence of the state of the field of architecture, of the marks of origin of the main political discourses that circulated within it, or even of the dominant political repertoire that characterized the left at that time, marked by a combination of popular messianism and avant-gardism (Brandão 1997; Xavier 2007). The “construction of the popular” without effective contact with this sector of the population, which rapidly expanded the peripheries of São Paulo during the periods of frantic demographic growth of the 1940s to the 1970s, also has a lot to do with this very type of land occupation and the characteristic types of politics in those expanding neighborhoods. Influential studies on the urban formation of São Paulo point out that, since the 1940s, the expansion of its peripheries was carried out by means of mostly informal land occupation, in territories that were increasingly farther from the central regions of the city and deprived of basic infrastructure. Housing was generally built by means of a disseminated practice of collective autoconstruction, usually without any kind of technical assistance—with the exception of the occasional hiring of construction workers

⁵⁰ This distance between intellectuals and the people was not left unnoticed by Brazilian artists in the 1960s and 1970s. Brazilian cinema during the 1960s and 1970s—particularly in the history of Cinema Novo—thematized this duality as well as the relations between intellectual classes and the poorest sectors of the population (Bernardet 1985; Xavier 2007). In São Paulo, an “architecture of poverty,” *Arquitetura Nova* (New Architecture, named after Cinema Novo), emerged at the margins of the dominant sector during the late 1960s, as I show in chapter 6.

for some of the most technical aspects of the construction (Kowarick 1976, 1994; Sampaio and Lemos 1978). Neighborhood politics in these conditions usually took the form of populist practices of direct connection and exchange of favors (services for votes) between these populations and elected officials (Cardoso and Singer 1975; Fontes 2008; Weffort 1978). In very few cases peripheral neighborhood politics gained more political density (Fontes 2008). This situation only changed considerably in the late 1970s, despite the persistence of these populist mechanisms of political association to the present day.

Thus, despite the remarkable presence of discourses about the function of architecture in Brazilian society, there was a deep constructive, geographic, and social divorce between architects and “the people.” I further advance this argument in the next chapter, together with a more detailed analysis of the repertoire of semio-material that characterized the field of architecture in São Paulo in the 1950s and 1960s.

CHAPTER 4

Brutalism and the people: Translations of a leftist political repertoire

Introduction

During the twentieth century, São Paulo developed from a small provincial city into a large metropolis of 2.6 million inhabitants in 1950 and 8.1 million in 1970. The metropolitan population grew 78 percent during the 1950s and 72 percent during the 1960s (table 1). Its growth reflected the contradictory processes of urbanization that most large cities in the Global South faced at the time or would face in the following decades. Its modern (and, growingly, modernist) central area (image 9) was still characterized by the presence of a large number of tenement houses—the traditional form of popular housing in the city until the definitive growth of the peripheries from the 1940s on (Blay 1985; Bonduki 1998). At the same time, the city outskirts boomed with the influx of migrants, mostly from rural areas, searching for better conditions of life—which usually included a job and an owned house, even if poorly built and distant from most urban infrastructure and amenities.

Life in a large city was rather challenging, but at least it provided the expectation of the benefits of entrance into the world of “regulated citizenship” (Cardoso 2010; Santos 1979)—the arrangement of rights and a pattern of connection between the state and workers

established during the Getúlio Vargas regime (1930–1954).⁵¹ In this arrangement, a (low) wage job represented incorporation into a limited world of rights. The urban environment, with all its problems, was a space of hope, where the utopia of a steady minimum wage job⁵² and the possibility of owning a self-built house in one of the growing peripheral neighborhoods provided a horizon of expectations that oriented the decisions of millions of rural migrants (Cardoso 2010).

Table 1. Urban sprawl and demographic growth in São Paulo Metropolitan Region, 1950–2000.

Year	Urbanized area (km²)	Population	Growth of urban area (%)	Demographic growth (%)
1950	355	2,663,000	—	—
1960	614	4,739,000	73	78
1970	990	8,140,000	61	72
1980	1,370	12,589,000	47	55
1991	1,700	15,800,000	24	26
2000	2,000	18,662,000	18	18

Source: (Kowarick 2009:277)

As I showed in chapter 3, the 1950s and 1960s also saw the consolidation of modernism as the dominant language of architecture in São Paulo. This process was not disconnected from the development of the field of power in Brazil and especially from a repertoire of national developmentalism that was hegemonic in Brazilian leftist circles during

⁵¹ The Vargas regime is a period of intense transformation of Brazilian society. Vargas was the main leader of the 1930 Revolution, which put an end to the period of the so-called República Velha (“Old Republic,” 1889-1930). That old regime was politically dominated by agrarian elites which advanced liberal economic policies that directly benefitted the main economic sectors represented by the government. During Vargas presidencies (1930-1945 and 1951-1954), the state implemented policies that fostered an incipient process of industrialization and a basic system of social protection that included a national minimum wage and other workers’ rights. These work related rights benefitted mostly a growing sector of the population, urban workers, but also led to the weakening the workers organization, since the state regulated and limited unions’ independence and capacity of organization (Vianna 1989).

⁵² The prospects of finding a job were encouraging. In 1959, 89 percent of men and 74 percent of women were employed within a month after arriving in São Paulo. The secondary sector expanded rapidly in São Paulo in the 1950s and 1960s, especially with the installation of the auto industry in the southeastern municipalities of the metropolitan region as well as with the expansion of the chemical, pharmaceutical, and paper industries (Fontes 2008:62–3).

the 1950s and 1960s. To produce progressive architecture was a pragmatic problem of articulating a political repertoire and a repertoire of practices of design and construction. One aspect of this articulation of political repertoires and practices of design and construction constitutes the main problem for Brazilian architects from the 1950s forward: the possible connections between architects and “the people,” especially the large masses of migrants that dramatically changed the dimensions and dynamics of Brazil’s largest metropolises from the 1940s to the 1980s, leading to a radical transformation of Brazilian society.



Image 9. Vale do Anhangabaú, downtown São Paulo, 1950. Source: Hans Gunter Flieg, Instituto Moreira Salles.

João Vilanova Artigas clearly framed this challenge: “It is clear that while the connection between architects and the popular masses is not established, is not organized,

while the work of architects does not receive the highest glory of being discussed in factories and farms, there will be no popular architecture. Until then, one must maintain a critical attitude toward reality” (Artigas 1981:77). Commenting on this fragment years later, Artigas clarified that position: “That sentence saved me, because it gave me the freedom to research all the history of culture from then backwards, and to argue how I could make my national, progressive architecture. And it turns out that I can claim to have found paths in that direction that I can see much more clearly than those who criticize the architecture from São Paulo” (Artigas 1989:77).

Artigas, in these two quotes, illustrates three important points: First, the connection between politics and the production of the built environment is pragmatic; it always involves adjustment and negotiation with the materials, economic constraints, discourses, skills, and other social conditions at hand. Second, the production of modern architecture in the period was deeply haunted by the political quest for the emergence of the “nation” and the “people”—two central tropes for the leftist intellectuals of the period. And, finally, by tracing a direct connection between his quest for architectural solutions to political dilemmas and the development of an “Arquitetura Paulista” (São Paulo Architecture), Artigas reinforces his own centrality in the organization and in the establishment of the dominant practices in the field of architecture in São Paulo from the late 1950s to the 1970s. I develop these three points throughout this chapter.

Artigas and other key architects of the period knew quite well that there was a huge gap between the aspiration to produce progressive architecture and the limitations of the practice of architecture in a developing society. First, the work of architects represented only a small fraction of the production of the built environment during the mid-twentieth century in

São Paulo, when the city experienced frantic expansion. A 1996 editorial in *Acrópole*, the most influential architectural journal published in the city until the early 1970s, laments the fact that the large majority of buildings were produced either by low-income families themselves or by the real estate market, without any consideration for consecrated practices within the field of architecture: “One need only open the newspapers to check the real estate ads and see, with boredom and shame, the blueprints of the buildings advertised: absurd, nonfunctional, disproportional, miserable, technically irrational, expressing the most incorrect ways of using the architectural space. Real estate speculation does anything and business has no frontiers” (Corona 1966:18).

In the architectural discourses of the time, however, the real estate market was not the only entity deemed responsible for limiting truly progressive architecture. Artigas, in 1952, reaffirms a bleaker position: a progressive architecture, directly influenced by “the people” and prone to the promotion of a harmonious connection between their interests and the development of the country, would not be possible under capitalism (Artigas 1989:19). Artigas, the pragmatic, was also the idealist prophet of the future connection between the people and architects, since this connection at that time was seen as impossible. Later, Artigas would argue that: “in the face of the impositions of Brazilian capitalism, I think I have the right to elaborate proposals for the future in utopian terms” (Artigas 1989:61).

These practical and political limitations led to partial, pragmatic, and tentative architectural answers to political dilemmas. I argue that both a formal experimentalism that led to the establishment of a visual language and a design practice known as “brutalismo paulista” (São Paulo brutalism) and the impetus for future industrialization of construction are two paths to solve the same practical dilemma, which I mentioned in the introduction: the

passage from the *one* to the *many*, from the *single* to the *multiple*. This problem impinges on the practices and discourses of any architect concerned with the political and social import of their practices, but it had a particular formulation in São Paulo in the mid-twentieth century, given the specific social-spatial formation of the expanding city as well as the dilemma of a progressive avant-garde sector of the field that shared the repertoire of national developmentalism of the Brazilian left but maintained a social, spatial, and experiential distance from the daily lives and struggles of the urban poor. The articulation between a political repertoire and a set of semiotic practices in the production of the built environment in São Paulo of the 1950s and 1960s was also associated with the attempt to articulate a political collectivity: a people.⁵³

These questions haunt the architectural practices in São Paulo in the period, particularly the practices of the leading architects. This was not only a political dilemma, since it also had to do with the constitution of the field as relatively autonomous from the field in Rio de Janeiro—which dominated national architecture until the late 1950s and was the face of Brazilian production for international consumption until then. Despite the importance of the architecture produced by Oscar Niemeyer, Lucio Costa, and the Roberto brothers (Marcelo, Milton, and Maurício Roberto), among many others, the social question was not at the center of Escola Carioca, with a few commendable exceptions (such as the production of Affonso Reidy and some important housing projects funded by the Instituto de Aposentadorias e Pensões dos Previdenciários (Institute of Retirement and Pension—IAPI) (Bonduki and Koury 2015; Bruna 2010). Or, more precisely, the political repertoire that informed their practices did not have the *social question* at its core, but instead the problem of the constitution of the *nation*. The initial connection between the architecture of Costa and Niemeyer and the

⁵³ Or to express the limits of this articulation in a given context.

authoritarian politics of the federal government of Getúlio Vargas led to a lasting impasse. A certain conception of national development stripped Brazilian architecture from one of the main ideological concerns of modern architecture—“its social extroversion with an emphasis on housing and design” (Recamán 2006).

The fact that architecture in São Paulo was so deeply politicized in those decades should not be left unexplained. First, it is important to note from the beginning that the dominant discourses were elaborated in the university, at a time when it became more profoundly immersed in political disputes and tensions. Furthermore, the need to establish a contrast with the architecture produced in Rio also played a key role in this process. Besides, São Paulo was growing at an unprecedented level for a Brazilian city, a situation that posed urgent questions to architects. Finally, one should not underestimate the importance of Artigas—a communist militant with a longstanding reflection about the social function of architecture—in establishing the contours of the field and promoting practices that would allow for translation between the political repertoire of the left and the repertoire of brutalism.⁵⁴

In this chapter, I initially provide an analysis of the semio-material practices of design and construction that characterized this architecture. Next, I reconstruct the main elements of the political repertoire of national developmentalism, showing that its image of the urban poor is marked by a severe distancing from the empirical life experiences of this segment of the population. Then I show that progressive architects in the period deployed two semio-material strategies to operationalize the articulation between that political repertoire and the field of architecture: metaphorical indexicality and the impetus for industrialization of construction. Finally, I show that the distancing between architecture and the spaces of social engagement

⁵⁴ A term that a few members of the culturally hegemonic sector of the field avoided—including Artigas.

and politics of the urban poor affected how architects deployed the semio-material practices available in the field of architecture to articulate the repertoire of national developmentalism into a program for low-income housing.

Brutalist semio-material practices of design and construction: Key elements

In many respects, the types of material and structural choices that architects from São Paulo made in the 1950s and 1960s are deeply aligned with international trends in architecture (Banham 1966, 1955; Zimmerman and Crinson 2010)—no matter how much Artigas and other influential architects avoided such comparisons. Brutalism, as an architectural movement that dominated a significant part of the international production in the 1950s and 1960s, is not an exclusive product of the dynamics of the field of architecture in São Paulo or anywhere else. Nevertheless, it is important to note that dominant narratives in architecture have always relied on an idea of a unilateral transmission of ideas, techniques, materials, and discourses from the Global North to the Global South, as if this process of appropriation did not involve a more complex dynamics of connections, influences, appropriations, and reinventions (Jarzombek and Prakash 2010). Also, it is important to avoid the common analytical mistake of uncritically treating phenomena that have received the same “name” as a priori equivalents. The fact that architects and critics from São Paulo from the 1950s to the 1970s used the term *brutalism* to classify part of the local architectural production does not eliminate the need to critically access the specificities of the social, technical, urban, and political dynamics involved in the production and “consumption” of that architecture.

With that in mind, it is important to note that the semio-material practices that characterized that architecture are pragmatic manipulations of different ideas and materials, in

a situation of economic, political, and urban constraints. They are responses to many different inputs: the state of the field at the time and the need to advance the process of its autonomization, disputes within the field, the availability of a large contingent of low-wage construction workers, the low level of development of the construction industry when compared with its European or North American counterparts, and the dissemination of a certain leftist political repertoire, which was highly influential in this sector.

In terms of the main material and constructive characteristics of this culturally dominant architecture, many of its elements are radicalizations of international trends, usually with aesthetic and political motivations. Structures should be visibly exposed, sometimes almost excessively or didactically (Conduru 2004; Ferro 1986); concrete was the primary modern material, and architects and builders should not hide the “truth of materials” and structures (Banham 1966; Forty 2012). The most exemplary buildings produced during these decades in São Paulo, from single family houses to schools and bus stations, deployed exposed concrete, usually with very visible marks of its casting process. Artigas, for example, sees this as a general lesson from some of the great masters of modern architecture and not as specific to brutalism:

Frank Lloyd Wright, for example...makes buildings of a characteristic aspect—it has the colors of the materials of which they are made. Wood, bricks, stone appear always with their characteristic colors, their textures, their own qualities.... To paint them, adding qualities which are not their own, to use them in ways that hinder their characteristic values is to lie and to vilipend the material. (Artigas 1981:61–2)

Using exposed concrete construction is not the only practice of that repertoire. The literature on the history of architecture in São Paulo has devoted considerable attention to describing with precision the main elements of brutalism (Acayaba 1985; Bastos and Zein 2010; Zein

2005). Marlene Acayaba provides a very useful synthesis (or, in her somewhat ironic words, the “Ten Commandments”) of São Paulo brutalism.

1. Houses will be singular objects in the landscape; 2. The logic of placement will be determined by the geographic situation; 3. The program will be organized in a single block; 4. The house is intended to be an ordering model for the city; 5. The house will be a machine for living; 6. The house will be ordered as a function of its internal space: the patio, the inner garden, or a central open space; 7. Independent volumes will contain the necessary closed spaces and will define the open spaces; 8. Spaces evolve one from another, no matter whether they are internal or external; 9. Materials will be generic and industrial if possible; 10. Social relations will take place under a new ethics. (Acayaba 1985:47)⁵⁵

Some of these points are particularly crucial for my purposes. First, the house (i.e., single-family bourgeois house) is the main built object through which brutalism in São Paulo was elaborated and experienced. The brutalist house, an austere space made of concrete, usually organized as a single block under a unifying roof, allowed for the creation of a certain “generative scheme” that would later be adapted to the design and construction of much larger projects. It is not surprising, then, that some of the most representative buildings of this school are single-family houses—for example, the Paulo Mendes da Rocha house (image 10) and the Acayaba House. Also, some of these elements can be observed in public projects that came to define the public face of that architecture, such as the School of Architecture and Urbanism of the University of São Paulo, probably Artigas’s most significant project (images 11 and 12).

⁵⁵ For a more systematic description of the school, see Bastos and Zein (2010:111–126), Williams (2009), and Zein (2005).

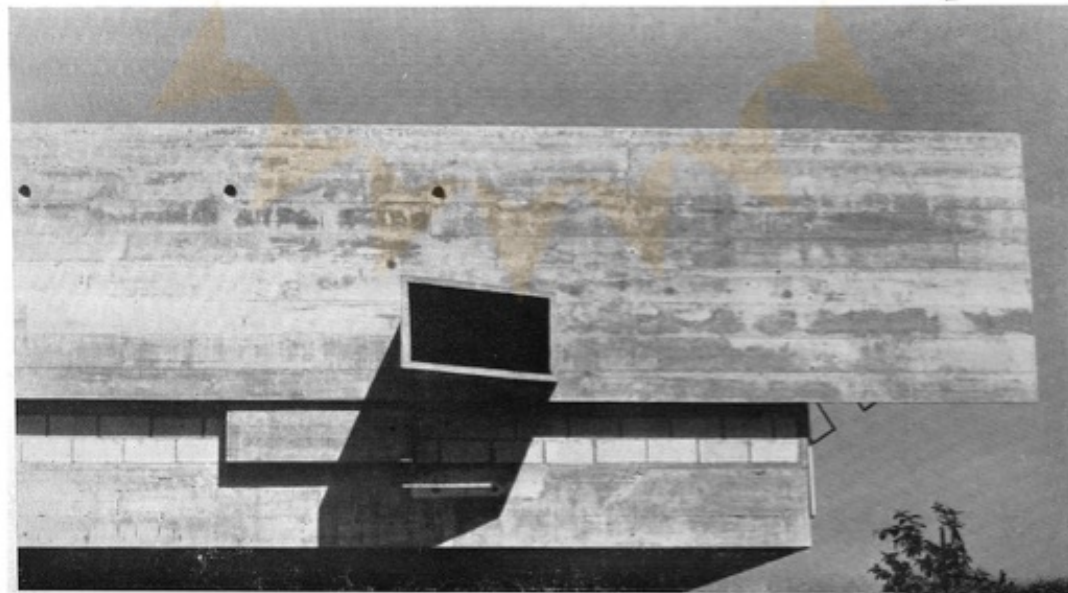
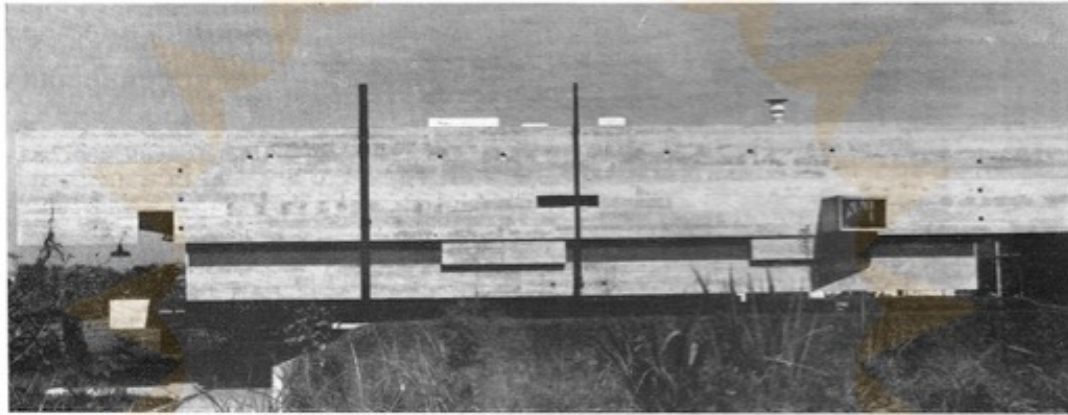
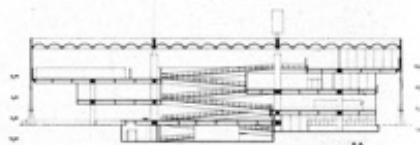


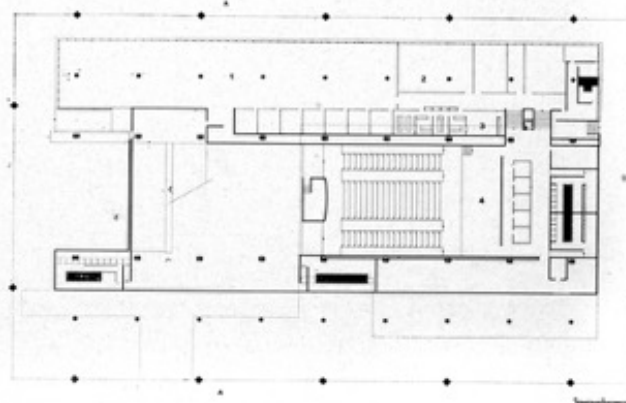
Image 10. Paulo Mendes da Rocha House, 1964. Source: *Acrópole*, September 1967, no. 343, p. 32.⁵⁶

⁵⁶ Distributed in CC, attribution BY NC ND (source: <http://www.acropole.fau.usp.br/edicao/343>).

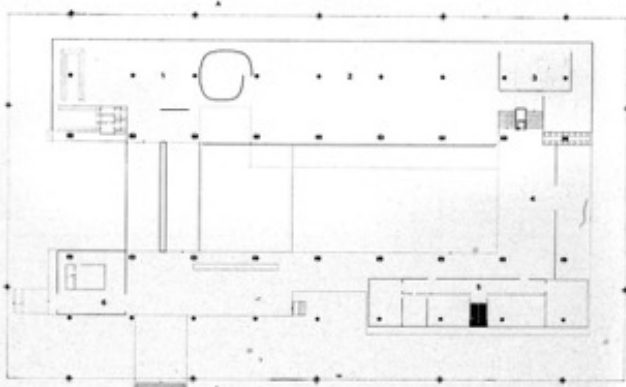
colaboração: Carlos Cascaldi, arquiteto
construção: Constr. Alberto Nagib Rizkallah Ltda.
local: Cidade Universitária, Butantã, SP



Cota -1,10 e -3,00
1 - Oficina de modelas; 2 - tipografia; 3 - laboratório; 4 - suíte



Cota +0,80 e +2,70
1 - Restaurante; 2 - museu; 3 - grêmio; 4 - espera; 5 - diretoria; 6 - portaria



Faca voltada para a entrada principal



Image 11. School of Architecture and Urbanism of the University of São Paulo (Vilanova Artigas). Source: *Acrópole*, September 1970, no. 377, p. 15.⁵⁷

⁵⁷ Distributed in CC, attribution BY NC ND (source: <http://www.acropole.fau.usp.br/edicao/377>).



Image 12. School of Architecture and Urbanism of the University of São Paulo (Vilanova Artigas). Source: unknown photographer, 1960s, FAU-USP archives.

The middle- and upper-class house—or single-family bourgeois house, in the terminology of the time—is the main space of experimentation of that architecture. Previous analyses of the history and state of the field help to shed light on the reasons for that—especially the distance of the field from stable state patronage and the resistance of this culturally dominant sector to “surrender” to the demands of the market (Bastos and Zein 2010; Dedecca 2012; Segawa 1999; Wisnik 2004). The socialization of many of these prominent architects in the circles of a growing intellectualized middle and upper middle class afforded them a higher degree of creative freedom. The bourgeois house could operate as an space of aesthetic freedom, and, eventually, a space of political experimentation. As Wisnik argues,

Placing his faith in the architectural project as an instrument of political emancipation and social transformation, Vilanova Artigas proposed a radical change in the status of buildings: even a house would be thought of in the same terms as large public buildings such as viaducts, airports, bus terminals and hydroelectric power stations. In this way, the concrete box slabs and the girders in pre-stressed reinforced concrete, spanning great lengths, appear as models for industrial production on a national scale. (Wisnik 2004:48)

Before analyzing how this repertoire provided the bases for translation between the political repertoire of the left and the production of the built environment, I present the main elements of the political repertoire of national developmentalism, with an emphasis of the image of the “people” that it sustained and that it intended to articulate.

Intellectuals and the people

The dominant sector of the architectural field in São Paulo was deeply immersed in a broad intellectual and, in some cases, political coalition that, by and large, organized the political thought and artistic practices of the majority of the cultural elite of the period as well as some of the main political forces. This coalition of center-to-left politicians, progressive artists and intellectuals, and socialist or communist militants supported a politics of “national developmentalism,” as the literature commonly describes it. In summary, the politics of national developmentalism was one of the manifestations of a certain form of “middle-class radicalism” (Candido 1990) in association with a nationalist communism in a country with growing levels of urbanization and industrial production. It proposed the intervention of the state as the bearer of progressive national interests against the “reactionary” power of traditional agrarian oligarchies. In the economy, one of the central tenets was the idea of “import substitution,” with centralized state action to foster national industrialization (Tavares 1976). Industrialization under the guiding action of the state was seen as the key process for

overcoming the situation of underdevelopment and high levels of poverty (Bielschowsky 1995:7).

In the cultural terrain, national developmentalism proposed a strong conception of a national art that also embraced and reinvented the work of the most “advanced” international avant-gardes (Amaral 2003). In all its manifestations, the politics of national developmentalism proposed that Brazilian society should break its colonial ties in order to produce a true “nation” (Arantes 2012).⁵⁸ Brasília—the utmost materialization of such politics—is the culmination of the modernist dream of designing and building a modern city from scratch (image 13), combined with a strong local reading of architecture and made possible by the availability of a vast low-wage labor force, during a presidency that promised that Brazil would advance “50 years in 5” (Juscelino Kubitschek, 1956–1961).

The quest for the nation was a central trope among the Brazilian cultural elite at least since the 1920s, when modern art became a new material for thinking the relations between Brazil and the world as well as between intellectuals and the people. The Week of Modern Art of 1922 in São Paulo was the epicenter of the dissemination of this quest, although it was certainly not the only one (Amaral 2003; Sevcenko 1992). Moreover, the important generation of intellectuals who wrote general essays on the character of Brazil as a nation starting in the 1930s helped to raise the issue of the incompleteness of Brazilian social formation—and, in some cases, of its artificiality and dependence on the importation of foreign ideas (Arantes 1992; Arantes and Arantes 1997; Schwarz 1992). This quest for the nation also took the form

⁵⁸ Several of Artigas’s writings serve as examples of this centrality of nationalism in the political imagination of large segments of the left during the mid-twentieth century—especially his opposition to the participation of American artists in the First Bienal Internacional de São Paulo, in 1951 (Amaral 2003; Artigas 1988), and his consistent refusal to describe international influences on his work (Dedecca 2012; Zein 2005:32). This is also a central trope for the Communist Party, which, as Brandão argues, was more nationalist than Marxist during the 1950s and 1960s (Brandão 1997:197).

of a quest for the Brazilian people, during decades in which Brazil slowly became mostly urban and in some areas—São Paulo in particular—industrial (Arruda 2001). During the 1950s and 1960s, this quest for the people and for the nation dominated production in the arts and in academia (Bernardet 1985; Brandão 1997:215; Fernandes 1965; Ioris 2014; Toledo 2005). It provided the set of questions, discourses, and problems that many artistic movements elaborated and articulated through the specific languages of their fields.



Image 13. “From nothing, the capital” (“Do nada, a capital”). Brasília. Source: Thomas Farkas, ca. 1958, Instituto Moreira Salles.⁵⁹

The political repertoire of national developmentalism is also marked by a future-oriented theory of history. The shrinkage of the present and the expansion of an imaginary

⁵⁹ The image shows the modernist capital being erected on the background and the makeshift houses built on Brasília’s fringes. These shacks and huts would house the families of construction workers employed in the project. These peripheral makeshift neighborhoods would later expand into low-income dormitory towns.

future (Santos 2014) were central aspects of the social imagination of a large segment of the Brazilian cultural and political elites until the 1980s. São Paulo's dominant modernist architects helped to reinforce this aspect of that highly disseminated leftist political repertoire. Architects had to design and, in many cases, build in the context of a less-than-ideal present. But this shrinkage of the present is not simply another name for "pragmatism," as one might imagine. It was also the materialization of a concept of "the people" that dissociated it from the immediate forms of collective practice of the lower classes in urban settings in Brazil. These impoverished populations had to bear a large share of the burden of materially producing the city with limited resources, techniques, materials, and embodied a concept of self-worth still deeply marked by the centrality of house ownership (Durham 1984; Holston 2009).

Of course, this population, most of which was composed of migrant workers and families, was also moved by the larger idea of life improvement that the city would provide. Most of them, as mentioned in the introduction, had moved from some of the poorest regions of the country, especially the northeast and poor regions of the state of Minas Gerais (Durham 1984; Rolnik 2003; Sader 2010). For most of these families, inhabiting the city was a form of resistance in the first place, even if it was not conceptualized in terms of any of the leftist versions of the role of the people in the larger project of transforming Brazilian reality. For many of them, as the literature has pointed out, migration to the city and the acquisition (and, in most cases, the self-construction) of a house even in the least urbanized areas of the city constituted not only an improvement in their life prospects but also an exercise in the production of a certain notion of citizenship (Bonduki and Rolnik 1979; Caldeira 1984; Durham 1984).

Nevertheless, the political repertoire of national developmentalism that dominated most leftist political programs at the time still turned its back on most of these native conceptualizations of citizenship and politics. For example, the Communist Party, although it had been illegal since 1947, devoted the majority of its political formulations about the people to a discussion of the revolutionary potential of rural and industrial workers and to the need to establish alliances with “progressive” sectors of the Brazilian bourgeoisie (Prado Júnior 1966; Reis 1999). Problems of everyday life, as well as conflicts in the realm of relations “in production” (for example, structures of domination in factories and construction sites) were not part of its agenda. The orthodoxy of the Brazilian Communist Party, such as was formulated by intellectuals such as Jacob Gorender and Nelson Werneck Sodr e and in several official documents the party produced from the 1920s until the military coup of 1964, described the Brazilian situation as pre-capitalist and fundamentally dominated by agrarian elites. In this sense, the party—an important intellectual and, at certain times, political ally in the national developmentalist coalition—considered that the Brazilian situation posed dilemmas similar to those of Russia in the prerevolutionary period, which required a reformulation of many traditional Marxist categories.

In a “feudal” social formation, the party should foster a bourgeois-democratic alliance against the dominant agrarian and imperialist capital (Brand o 1997:190 and 207). This alliance, within the contours of a language of national development, should bring together industrial workers and progressive sectors of the emergent national bourgeoisie. At the same time, rural workers should play a revolutionary role against rural oligarchies by demanding the extinction of large rural estates and not the improvement of work and life conditions—a kind of demand the orthodoxy considered only “reformist,” that is, not truly revolutionary

(Cardoso 1964; Prado Júnior 1966; Reis 1999).⁶⁰ The Marxism of the Brazilian Communist Party was “radically anti-romantic, illuminist, evolutionist, and piously admiring of industrial-capitalist ‘progress’” (Brandão 1997:240). It was also vanguardist, in the sense that it believed that, following a common trend among the left since the nineteenth century, “minorities of disciplined revolutionaries, equipped with sophisticated theories and superior virtue, could anticipate the direction of popular hopes, act decisively in their names, and in the process radicalize the masses” (Eley 2002:26).

To be sure, this intellectual framework was contested within the Brazilian left—as the work of nonorthodox Marxist social scientists and historians such as Caio Prado Jr, Florestan Fernandes, and Fernando Henrique Cardoso would attest, as well as other emerging theories and practices, such as the radical pedagogy elaborated by Paulo Freire in the 1960s (Cardoso 1964; Fernandes 1975; Freire 2014; Prado Júnior 1966; Prado Junior 2012). Moreover, although the Communist Party was culturally hegemonic in the left, it was part of a constellation of organizations that structured the progressive political field from the mid-1950s to 1964. This constellation was also composed of leftist nationalists—such as the partisans of Leonel Brizola (the combative governor of Rio Grande do Sul), progressive Catholic students organized as the Juventude Universitária Católica (Catholic University Youth, or JUC), and small militant groups that had broken from the party, which defied the revolutionary temporality oriented to the future as well as the reformist methods of the

⁶⁰ From 1958 to 1964, the Communist Party developed a highly pragmatic attitude toward the state, building alliances with other progressive parties and social sectors, having in mind the defense of a program of reforms that was to lead to strengthening of the national market, improvement of life conditions for the proletariat, and agrarian reform (Brandão 1997:236). This program was to be implemented by a nationalist and democratic government—and João Goulart, the last president before the coup d’état, seemed the ideal candidate.

Communist Party in the period, proposing a more direct strategy of armed revolutionary struggle (Ridenti 2010:26–27).⁶¹

Nevertheless, a few elements of this theory illuminate the distance between urban professionals and the booming peripheral populations. First, those migrant workers and families moving to slums or to the peripheries of the largest Brazilian cities or did not occupy a central place in this political repertoire, since they did not fall neatly within the social ontology or the philosophy of history that informed the party. This growing urban population was not conceptualized after a specific analysis of their experiences in the city but only when certain elements of this population were employed as industrial *workers*.

This leads to the second element of this disconnect: the urban, with all its specificities, did not decisively inform this political repertoire, which radically dissociated class dynamics from urban dynamics. Urban workers would matter in the historical project of the Brazilian revolution only as “workers,” not as individuals inhabiting and producing the city—and, at the same time, elaborating conceptions about justice, politics, and dignity.⁶² When defined as workers, these members of the Brazilian population are disembodied and dematerialized; their daily habits and routines as well as their practices of subsistence, daily struggle, and engagement with their communities are obliterated—as is their gender, of course, given the

⁶¹ This revolutionary strategy would find a more central place within the left in the late 1960s, as I elaborate in chapter 6.

⁶² The Brazilian left of the mid-twentieth century was not alone in its near blindness to the urban question. As many scholars have pointed out, and despite the presence of a seminal text on the origins of Marxism with respect to the condition of European cities during the first decades of the Industrial Revolution (Engels 2009), the urban question was theoretically dissociated from the theme of class struggle in most of the Marxist (and leftist) canon. This divorce is broadened with the prominence of Soviet orthodoxy in Marxism during the Cold War, with its notorious lack of consideration for the urban. Other important currents of Marxism in the 1960s—especially Maoism and Guevarism—would not remedy this deficiency. Only in the 1960s did progressive movements start to conceptualize the urban as theoretical object of central importance to the understanding of developed and developing societies (Castells 1979a, 1979b; Katznelson 1982; Lefebvre 1992; McDonough 1994). In Latin America, for example, discussion about marginality that devoted closer attention to the lives of the urban poor would influence debates within the left only starting in the late 1960s and particularly during the 1970s, against the orthodoxy of the dominant versions of Marxism in the region (Caldeira 2009; Fischer, McCann, and Auyero 2014; Kowarick 1997; Perlman 1980).

dominance of a masculine perspective within the left of the time and its contrast with the reality of the limited but existent forms of associativism in the peripheries, traditionally dominated by women (Caldeira 1984; Holston 2009). In order to adapt to the complexity of the social, this political repertoire relied on imported or local abstract categories to the detriment of the actual practices, challenges, and habits of that growing population that was transforming Brazilian cities with their feet—turning Brazil into a mostly urbanized country—and hands—building their houses and, in many cases, the infrastructure that would serve them.⁶³

This shrinkage of the present—when the only plausible solution was a democratic revolution in alliance with an idealist vision of a national bourgeoisie against the agrarian-imperialist capital—was complemented by a belief in the future role of a loosely defined “people” in an eventual socialist revolution. It is true that in the months before the military coup of 1964, institutionalized political channels materialized the national developmentalist alliance at the top, giving it a more pragmatic bent and boosting the role of the state in the political culture of the left, particularly when president João Goulart (1961–1964) started to propose reforms that inflated the “historical present,” such as a project of agrarian reform that enraged most of the Brazilian elites. At the time, a proto-revolutionary rural movement in the northeast known as “ligas camponesas” (peasant leagues), led by Francisco Julião, imposed a challenge to the local rural oligarchies and also inflamed many of the progressive national forces (Mallon 1978; Page 1972). Nevertheless, most of the leftist cultural elite was still

⁶³ As a caveat, it is important to note that there are exceptions to this general pattern. For example, Fontes describes other forms of activism in the neighborhood of São Miguel Paulista, in São Paulo, which predates the emergence of urban activism that mostly characterizes the 1970s and 1980s (Fontes 2008). Also, during the mid-1960s, leftist students, artists, and militants started to become concerned with the political role of the growing populations living in slums and poor urban neighborhoods in cities such as Rio de Janeiro and Recife, as well as with the struggle of rural workers, and began to establish cultural and political connections with them (Garcia 2004; Schwarz 2014), in many cases under the theoretical influence of Paulo Freire’s critical pedagogy (Freire 2014).

devoted to a repertoire that would replace the actual political dynamics of the lower classes with the idealized version of how the historical process should unfold and the yearning for a people yet to come.

Architecture and the political repertoire of national developmentalism

Architecture, as any set of defined practices within a cultural field, cannot perfectly translate the political repertoire of national developmentalism in any of its variations. In fact, one extrapolation of the theoretical argument that I am developing here is that no set of practices could perfectly translate a political repertoire but the practices within each field refract that repertoire into their specific “world,” helping to change that repertoire at the same time.⁶⁴ In this sense, it would be fruitless to try to map how each of the aspects of the political repertoire previously described find an equivalent in the practices of architects in the period.

In spite of that, architects pragmatically attempted to connect their practices and discourses with the main points of that political repertoire. In the case of architecture in São Paulo in the 1950s and 1960s, this attempt took two central forms: a practice of critical irony via a semio-material mechanism of “metaphorical indexicality” and several attempts and discursive investments in the industrialization of construction in order to increase the production of low-income housing. Both of these aspects are pragmatic attempts to operationalize this articulation between the political repertoire of national developmentalism (especially in its communist variation) and semio-material practices in the field of

⁶⁴ Bourdieu uses the term *refraction* with a grain of salt, in order to offer an alternative to the common use of the concept of “reflection” (e.g., “a certain romance reflects the social disputes of the time when it was written”), very commonly used in the sociology of art and intellectuals (Bourdieu 1996:220). I employ the term with a similar purpose here, although it is more precise to say that architects articulate the repertoire that circulates in the field of power and the semio-material practices available in the field of architecture.

architecture, in a situation in which the collective desire for industrialization of construction sometimes had to be compensated by formal originality, given the limits of the industrialization process (Conduru 2004:66).⁶⁵ At the same time, they are pragmatic solutions to the continuous problem in architecture of bridging the single and the multiple.

Metaphorical indexicality and critical irony

As many commentators suggest, the Brutalist School of architecture in São Paulo was capable of advancing a very particular and sophisticated program for connecting ethics and aesthetics. Segawa points out that this contribution was possible given several conditions of the practice of architecture at the time in Brazil, and in São Paulo in particular: the political context, in which the left emerged as a central political and intellectual player; the professional prestige of architects and the growing presence of their activities in public debates after the construction of Brasilia; the centrality of São Paulo for a project of industrial development; and the connection between the practice of architecture in the city and its origins in the field of engineering (in contrast with the field of architecture in Rio de Janeiro) (Segawa n.d.).

A key element of this architectural design ethic is what I propose to call a *metaphorical indexicality*. By this, I understand that, particularly in some of the most autonomous projects of Artigas and architects who shared the core principles of brutalism, such as Paulo Mendes da Rocha, the construction of the “bourgeois house” and a few key public buildings served as formal and material experiments for a critique of the social. Very commonly in these buildings, material indexes⁶⁶ of labor functioned as metaphors for a social

⁶⁵ On the history of Brazilian industrialization, see Cano (1977), Furtado (1977), and Wolfe (1993).

⁶⁶ In the Peircean sense (Keane 2003; Peirce 1991), as elaborated in the first chapter.

state of things—a critique endowed with irony, especially in the use of techniques regarded as archaic in the management of exposed concrete. This use of concrete would serve at the same time as a metaphor of the combination of progress and backwardness that characterized Brazilian modernity.⁶⁷ The contrast between the use of concrete and an almost performative exaggeration in the printing of the wood forms in the material served in many works as a metaphor for the nation’s drama in its process of conservative modernization. Concrete is a material as well as a constructive process that is commonly seen as modern, with a wide array of possible uses and cultural connotations (Forty 2012). Nevertheless, the application of concrete at the construction site using low-skilled labor deploying low-technology methods—such as wood form casting—could serve as an opportunity for architects to advance a material comment on the backwardness that still marked Brazilian social relations and industry.

The marks of wood forms on concrete and other indexes of labor could work as signifiers of the low production level of industrialization in the country and the continuity of traditional relations of production at the construction site. With that, Artigas, Mendes da Rocha, and several other prominent architects materially conveyed a certain reading of the history of the country that was increasingly popular among different sectors of the left: the idea that Brazil was becoming modern by means of an association with and the perpetuation of the most backward forces.

⁶⁷ There are echoes of this theory of conservative modernization in several manifestations of the progressive intellectuality in the 1960s and 1970s, from the analysis of the coexistence of progressive and retrograde forces in the national political arena, in racial relations, and in the particular form of Brazilian peripheral modernity (Fernandes 1965) as well as in the development of labor relations (Vianna 1989), among many others. This national drama of conservative modernization was also being elaborated in Cinema Novo—the most original and influential movement in Brazilian cinema in the 1960s, which combined the international “nouvelle vague” avant-garde (among many other influences) and national themes of poverty and of a potential popular revolution—as well as some of the most progressive movements in theater (Costa 1996).

Concrete, the favored material at the time, lent itself adequately to this task of indexing a tension between the old and the new. As I argued in chapter 3, following Forty's analysis (Forty 2012), concrete is widely open to semiotic manipulation. It can be simultaneously modern (since it emerges in its modern form after its industrial elaboration) and traditional (since concrete construction, in loco, is a low-skill technique). More importantly for semiotic manipulation in the case of São Paulo brutalism, concrete as a material is not dissociable from the work that led to its specific use in a certain building. It comes into existence only when pressure is exerted through the cast—concrete does not exist prior to its application (Forty 2012:51).

So concrete maintains the marks of the labor through which it is produced, in contrast to industrialized materials, such as steel or plastic, which more efficiently hide the processes of their production. In other words, concrete lends itself easily to the indexicality of labor. Nevertheless, indexes are only one level of operation of a sign. In the work of brutalists in São Paulo, those *indexes* could work as *symbols* of a tension between the modernity of those forms and spaces that that architecture could produce and the backward labor and social conditions that provided the context for its production—as well as political conditions after the coup in 1964. The deployment of this mechanism lies in stark contrast to the white, clean architecture of Brasília, as many commentators would point out (Arantes 2012; Conduru 2004; Ferro 2006). That architecture is produced with the application of covering materials and paint over the concrete, leading to a clean, almost industrial-looking materiality—despite the extremely excruciating labor conditions by means of which they were produced.

By conceiving and deploying the semiotic mechanism of metaphorical indexicality, these architects problematized the disjuncture between advanced engineering and an

“oligarchic society that has systematically resisted mass production and the spread of durable goods” (Wisnik 2004:48). The semio-material practices of design and construction that sustain the semiotic mechanism of a metaphorical indexicality allow for a reading of the architectural object along the lines of a poetics of material contradiction.

This critical irony also appears in a number of other deliberately exaggerated contrasts that Artigas, more than anyone else, introduced in his works—for example, the contrast between the lightness of concrete pilotis and the apparent weight of the slabs in the FAU-USP building or between modern exposed concrete and the use of an “archaic” trunk as a pillar in the important Casa Elza Berquó (image 14), which Artigas designed, at least in part, during his time in prison. Regarding this house, Artigas stated:

I made a home for Elza Berquó, for example, that is sarcastic, ironic, because it was a time when I could not have another thought in relation to such culture of our homeland but the will to really laugh at everything that was being done ... and did the design of this house as a ‘prisoner architect,’ also serving Elza’s complex personality. The house turned out a little pop, kind of a protest of all things, and ironic. I made a reinforced concrete structure supported by wooden logs in order to say that on this occasion this whole technique of reinforced concrete, which made this magnificent architecture, is just a hopeless folly in the face of all the political conditions that we lived at that time. (Artigas 1989:47)

The development of this politics of critical irony, which treats social issues as dramas that the architect could elaborate metaphorically, is largely a consequence of the lack of conditions for a mass intervention in the production of the built environment in the period, particularly in the production of low-income housing in São Paulo. Until the late 1960s, the architecture of São Paulo was rarely called on to contribute to the production of social housing. More autonomous with respect to the state when compared with “arquitetura carioca,” as I mentioned previously, the architecture of São Paulo had as its main customers an intellectualized upper-middle class or, to a lesser extent, the state, but almost exclusively in the construction of administrative

buildings, schools, and other public buildings. This was especially true during the administration of Carvalho Pinto (1959–1963), when the state government funded a large number of public works throughout the state—but still without any significant representation in the realm of social housing.



Image 14. Elza Berquó House, internal garden and pillars (Vilanova Artigas). Source: unknown photographer, 1968, FAU-USP archives.

Through this first semio-material mechanism, the “people” is articulated as a distant reality, only thematized as an absence or as a hopeful future presence, dependent on the

unlocking of the historical forces that prevented the development of the nation. A popular architecture appeared as an impossibility before such development—and, given that impossibility, one strategy left was the politics of critical irony and of *architecture as critique*. This tendency was radicalized after the military coup in 1964, when the epistemic and social distance between progressive architects and the urban poor was reinforced by the risks of establishing stronger connections with the lower classes.⁶⁸

Moreover, in order to be understood as an index of this historical drama, those indexes rely on the dissemination of a certain semiotic ideology among the public—indexes of labor might still work as such for individuals not immersed in the critical narratives of architecture and politics at the time, but the next semiotic step (indexes working as metaphors for a state of things) work only with the support of critical narratives and certain dispositions disseminated exclusively amongst the most intellectualized segments of the population of São Paulo at the time—even considering only the local bourgeoisie. As Peirce argues, symbols (and metaphors are symbolic mechanisms) are more arbitrary than indexes: they need a cultural context in order to operate as such. The engagement with the materiality of the house—as well as any materiality—certainly relies on discursive framings about the material and cultural properties of those built environments. In order for the indexes to work as symbols of that national drama, this discursive elaboration was necessary, and it is unclear to what extent it really informed the dweller's and the larger public's engagement with those buildings.

⁶⁸ The cultural critic Roberto Schwarz, analyzing the architecture produced in São Paulo from 1964 to 1968, argues that “once the contact with the exploited is frustrated, the formal solutions for which they were thought out were used in situations and for a public for whom they were not destined, leading to a change in their meaning. From revolutionary, they become a venal symbol of the revolution” (Schwarz 2014:94). My only disagreement with Schwarz's assessment is that, as shown earlier, that dimension of the semio-material repertoire was “symbolic” from the very beginning and not only after the military coup of 1964.

Nevertheless, the engagement with those houses was relatively autonomous with respect to those discourses, in phenomenological and affective dimensions.⁶⁹ For many of these families, that kind of austere architecture was rather shocking—something that Artigas, Mendes da Rocha, and other key architects were conscious of. Houses for bourgeois families should be rigid, austere; they should work as pedagogical, modern, and antioligarchical machines, forcing a more genuine contact with materials and structures. They also materially conditioned a dissolution between the exterior and the interior or between the public and the private—a political and spatial cleavage that was of central importance to the emergent local bourgeoisie. Lina Bo Bardi summarizes the perception of the political effect of that open, austere, concrete architecture: “Each house Artigas designs shatters all the mirrors of the bourgeois saloon” (Bo Bardi 1950:15). Nevertheless, this expected shattering of the images and narratives of the bourgeoisie that the brutalist house as a critical pedagogical machine should foster was only one of the possible forms of experience of the canonical houses of São Paulo brutalism. The ownership of such a house also was as sign of material and cultural capital and a crucial instrument of class distinction.

Therefore, the mechanism of metaphorical indexicality, although it was a mark of much of what is considered the best architecture ever produced in São Paulo, is limited in at least three ways. First, it is informed by a political imagination that perceived the social problem, and the urban question in particular, from a geographic, political, and historical distance. Second, in order to operate accordingly, it depended on a highly developed narrative about its supposed semiotic operation. Finally, with the dissemination of the program, this

⁶⁹ Fehérváry advances a similar argument about the relative autonomy of the phenomenological experience of inhabiting a “socialist housing project” in her thoughtful analysis of the materiality of housing in Hungary (Fehérváry 2013).

mechanism is routinized, losing much of its intended critical capacity (Ferro 1986; Penteado 2004; Recamán 2006).

Industrialization and low-income housing

Housing, and the housing deficit in particular, became a common topic in the discourse of Brazilian architects of the mid-1960s. Until then, in spite of the construction of a considerable stock of modern public housing, particularly the major projects financed by IAPI (created by law no. 367 of December 31, 1936) in the 1930s and 1940s, public housing occupied a secondary role in the country's architecture (Bonduki 1998), at least within what is conventionally treated as its hegemonic group, the Carioca School. The secondary position occupied by housing in a place dealing with serious urban and social issues attracted the critique of many Brazilian and foreign commentators, most famously of the Swiss architect Max Bill—who, in a controversial visit to Brazil in 1953, condemned Niemeyer and his colleagues and disciples' architecture for their excessive formal liberties and deficit of rationality and replicability (de Aquino 1953).

More profoundly, the Italian historian and critic Giulio Argan outlined in 1954 the paradox of Brazilian architecture up to that point: the vitality of the local architecture emerged in a society where modernity was being configured side by side with the preservation of structural traces of the past, without the leadership of popular forces that subverted such order. In his words “an immature and self-indulgent self-satisfaction, obtained in the limited scale of individual buildings, obscured a deeper analysis of the social reasons that had informed the creation of modern canons in Europe” (cited in Wisnik 2004:28).

However, this detachment from the issue of affordable housing was dealt a first blow in the mid-1960s, largely owing to the increasing politicization of the period, especially during

the presidency of João Goulart, which deeply affected the mostly progressive political circles, to which most of the influential architects of the country belonged. A milestone of this period is the National Architecture Seminar of 1963, organized by the Rio de Janeiro chapter of the Institute of Architects of Brazil (IAB-RJ), with the participation of several São Paulo architects, such as Joaquim Guedes and Jorge Wilhelm, who were members of its organizing committee. Moreover, in the early years of the decade, the issue of housing shortage and poor living conditions in slums and other Brazilian popular neighborhoods came to occupy more space in architecture and engineering journals, especially *Arquitetura* (Rio de Janeiro), and *Acrópole* and *Habitat* (São Paulo). An editorial article published in *Acrópole* in 1965 provides a glimpse on this:

All technicians, especially architects, are breathless from debating solutions and constructive technical procedures that could provide a faster, more economical, more rational, more logical solution. So, there are conversations about pre-fabrication, modulation, standardization, light materials, blocks of this or that kind, apparent concrete, walls of cellular concrete, and such and such. (Corona 1965:18)

Architecture journals published a large number of articles throughout the 1960s about rational construction techniques, mainly of prefabricated components. Ultimately, more euphoric proponents of industrialization came to propose the elimination of brick as the primary construction method. “Brick” here also served as a metaphor for unskilled labor that supplied the construction “industry” in Brazil at the time. The problem of housing shortages appears in a large number of articles and interventions of renowned architects and engineers. For example, Teodoro Rosso, in an article entitled “An Urgent Imperative: The Industrialization of Construction” argued:

In our country, where the most categorical statistical sources indicate a current deficit of 3 million households, only 100,000 homes are built a year. As a result, there was, for example, in the state of Guanabara an increase in

the number of slum dwellers from 300,000 in 1952 to a million and two hundred thousand in 1960... The low output of a sacrificed class consisting essentially of individuals detached from their natural habitat, socially maladjusted, nomadic by necessity, cannot be attributed to them as a natural and human deficiency. This is a problem universally discussed, and it has not found a satisfactory solution even in countries where the ‘*métier*’ of mason, a true traditional craftsmanship, is transmitted from father to son, as a real heritage of art and skill. Attempts to apply Taylorism into this class did not go beyond some modest results. Among us, given the current situation of our labor force, the application of principles of labor rationalization is just a true utopia. (Rosso 1962:32)

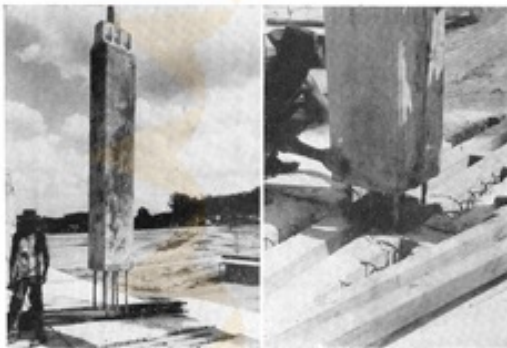
These architects were often knowledgeable about the experiences of industrialization of construction in other national contexts, especially France and the Soviet Union after the Second World War (Bruna 1983). The latter seemed particularly relevant, and several speeches and journal articles at the time mention the Soviet experiences with prefabrication. National developmentalism’s obsession with the advance of progressive forces, an interest also fostered by the Brazilian Communist Party, helps to explain this interest in the Soviet model. In addition, the historical mission of the progressive sectors of Brazilian society of liberating the country from the shackles of backwardness implied the need to produce housing on a large scale, as well as the need to overcome skill deficiencies in the labor force.⁷⁰

One of the most advanced attempts to rationalize housing construction took place in the designing and building of Conjunto Residencial da Universidade de São Paulo (University of São Paulo Residential Complex—CRUSP) in 1963. The project, led by Eduardo Kneese de Mello, consisted of twelve six-story residential blocks, with ten apartments per floor (image 15). The housing complex was initially built to shelter athletes during the Pan-American Games of 1963, and it was later converted into students’ apartments. The project was heralded as exemplary within that dominant architectural sector of the field, given its unconventional

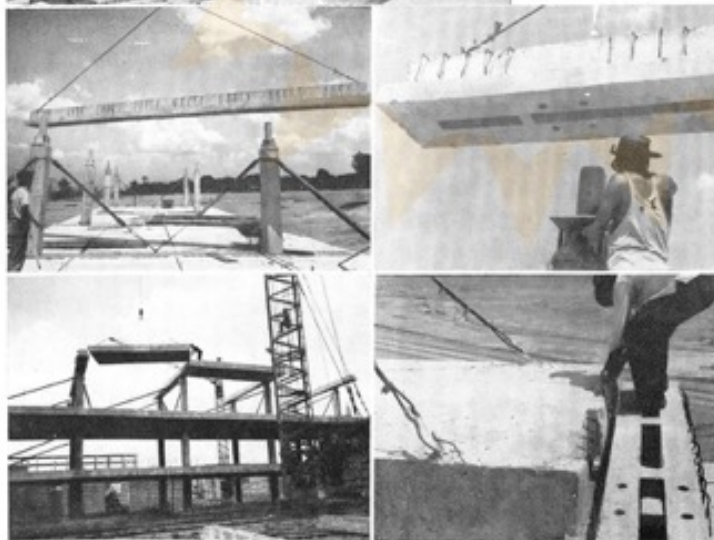
⁷⁰ These two were also the main objectives of the Soviet program of industrialization of the construction industry, together with its symbolic role in fostering a vision of Soviet modernity and state power and in instilling a modern, Soviet subjectivity in the population (Fehérváry 2013:83; Forty 2012:157; Humphrey 2005).

use of light structures, the use of materials in their natural colors, and the reliance on prefabricated elements (*Acrópole* 1962). Like any other important project of the time, CRUSP was not seen only as accomplishment in itself but also as a laboratory of future developments: “This breakthrough in the field of industrialization of construction shines promising perspectives on the solution of serious national problems, such as popular housing, educational edifices, hospitals, etc.” (*Acrópole* 1962:100).⁷¹

⁷¹ Beyond São Paulo, the architect João Filgueiras Lima (“Lelé”), who had worked with Niemeyer in the construction of Brasília, was also developing his first major projects with pre-fabricated concrete—maybe the most advanced experiment in Brazil on industrialization of construction in the 1960s and 1970s (Bruna 1983:124–126) .



Detalhes das diversas fases de montagem da estrutura préfabricada



A estrutura pré-moldada, ou seja, industrializada, revoluciona os métodos da construção civil. Consta esta estrutura de elementos (pilares, vigas e lajes) pré-moldados no próprio canteiro de obras.

As peças são fabricadas em moldes metálicos e vibradas com vibradores de ponta, o que dá uma boa superfície aparente. A escolha da forma de execução é função do péso e das dimensões das peças. A cura do concreto foi elaborada por meios racionais utilizando-se vapor a temperaturas pré-estabelecidas.

Para montagem e transporte dos elementos exige-se mecanização por meio de guias ou guindastes. A ligação entre os elementos e a transmissão dos esforços é feita através o elemento clássico: Concreto Armado.

Os Arquitetos, os Construtores e o "Fundo", orgulhosos de abrirem este novo campo de construção, desejam apresentar, no próprio ambiente de ensino, detalhes desta experiência, conservando a estrutura aparente, com suas junções e ligações à mostra.

Este pioneirismo no campo da industrialização da construção civil lança perspectivas promissoras à solução de graves problemas nacionais, como o da habitação popular, edifícios educacionais, hospitalares, públicos, etc..

Image 15. Page of *Acrópole* (February 1964, no. 303), showing details of the construction of CRUSP.⁷²

⁷² Distributed in CC, attribution BY NC ND (source: <http://www.acropole.fau.usp.br/edicao/303>).

CRUSP was not the only project to be considered the seed of a future overflow of rational constructive practices.⁷³ It is certainly a political and epistemic mark of that sector of the field at the time to consider any significant construction—from a single-family house to a housing project with hundreds of units—as a platform, a *laboratory* of new practices of design and construction. As I demonstrate in the next chapter with the concrete case of Cecap Guarulhos, the framing of a specific project as a laboratory also corresponds to an attempt to solve the dilemma of the single and the multiple, since it provides a language to operationalize a translation between certain semio-material practices in the field and the political repertoire in which most of those architects were immersed. As the architect Arnaldo Martino argues, showing that this rhetoric survived the decades since it was formulated:

This school in which we were educated, the architects of the 1960s and 1970s, we considered any project that we made as an experiment.⁷⁴ That was typical. A house was an experiment. Artigas's houses are very typical; they are not house projects; they are prototypes of much larger projects, because they rehearse technologies and spatial experiments that extrapolate the house itself.... That was transmitted to this entire generation. We had this spirit, right ... architecture was a laboratory; we were always experimenting with new techniques, new processes, and that was contagious, because you'd transmit what you did to your colleagues.⁷⁵

It is important to note that this rhetoric of the single project as a laboratory for future technical dissemination also follows the same kind of pragmatic calculation that embeds the mechanism of metaphorical indexicality. Given the absence of present conditions to proceed with larger projects of industrialization of construction—which were deemed necessary by most architects in order to solve the drastic housing deficit at the time—, architects would frame their limited, “single” projects as prefigurations of the multiple.

⁷³ See also, for example, *Acrópole* (1966).

⁷⁴ In Portuguese, Martino used the term *experiência*, which can be translated as both “experiment” and “experience.”

⁷⁵ Arnaldo Martino, interview with the author.

Conclusion

The imagination about “the people” that helps to define discourses and certain practices of design and construction in São Paulo during the 1950s and 1960s was not informed by a continuous and real experience of interaction and exchange with the population in São Paulo’s peripheries and their urban settings, but mostly by a simplified or mythical view about them—a view that the national developmentalism of the time helped to spread among the intellectual elites. The social question, in its urban dimension, frequently was formulated as a quantitative problem: the problem of a *housing deficit* (“déficit de moradias”). This issue, in such a socially constructed formulation, would also later inform the housing policies implemented by the military regime, starting in the late 1960s, but in impoverished architectural and urban variations.

In both dimensions of the politics of São Paulo brutalism, the dominant political repertoire placed great hope and aspirations in the “popular.” This “popular” entity that fed the imagination of the vanguardist sectors of the left was also materially articulated by the avant-garde of the field of architecture through the processes of metaphorical indexicality and a few experiments of industrialization. In this sense, the strong connections between the leftist vanguardist perspective of national development and the practices of the architectural avant-garde are pragmatically converted by architects in the dominant sector of the field into a program for the built environment—and for low-income housing more specifically, as I show in the next chapter.

In addition, the semio-material practices through which architects articulated the dominant leftist repertoire left several other questions about the politics of the built environment untouched. The political repertoire serves as a lens that refracts the material

world, giving emphasis to certain elements of the social and shifting others to the margins of politics. Other questions regarding the political character of the production of the urban space had little resonance in the field of architecture—especially questions pertaining to the location of low-income housing in the city, land reform, integration of different modalities of land occupation, and alternative and collective construction methods. All these themes would play a central role in the emergence of social movements and in the consolidation of a new culture of critical urbanism and architecture in the following two decades.

As pragmatic responses to pressing political, economic, and social issues as well as to the semio-material practices that characterized the field of architecture in São Paulo in the mid-twentieth century, the mechanisms of metaphorical indexicality and experiments in industrialization selectively helped to define what the housing problem was: mostly a quantitative problem that had to be addressed by the state, under the guiding advice of architects. This quantitative delineation of the housing question also reinforced the dissociation between architects and the urban poor, who were either reduced to a mythical image or incorporated into the politics of the present as an abstract, quantifiable entity, synthesized in the idea of the “housing deficit” that divorced this large segment of the urban population from some of the most crucial features of their social experiences.

In the next chapter, I reconstruct the promises and tensions of one key case of the materialization of this program: the design, construction, and habitation of Cecap Guarulhos.

CHAPTER 5

Concrete Politics: Assembling Cecap Guarulhos

Introduction: Cecap and the ideology of design

When is a building complete? Artigas, in his public exam to return to FAU-USP as a full professor in 1984, asserts categorically that architecture “does not exist on paper.” According to him, in order to exist, architecture has to acquire a materiality beyond the apparatus of design. At the same time, Artigas repeatedly asserted that design was a crucial practice through which architects could engage in the production of a new society. *Desenho*, one of the terms in Portuguese for “design,”⁷⁶ should be seen at the same time as the drawing and, as its etymology suggests, as an instrument to define the *desígnio* (“intention” or “outline”) of the built environment and of society (Artigas 1981).

Nevertheless, the passage from design to construction is not the imposition of an idea upon inert materials. As we will see in this chapter, the life of the built environment is elaborated via the continuous struggle and negotiation of different communities of individuals and materials. The semio-material practices of design condition some of these operations, but the ideology of design, which is commonly reproduced as one of the effects of the field of architecture and also as one of the principles of its existence, cannot completely explain the

⁷⁶ The word in English is also commonly used, as well as the term *projeto*.

entirety of the social life of the built environment or the narratives and practices of the actors involved in this social life.

The ideology of design is a field-specific manifestation of the traditional Aristotelian *hylomorphic paradigm*—the idea that material production is the imposition of mental form upon passive materials.⁷⁷ This paradigm was famously incorporated into modern social theory via Karl Marx’s comparison between the “worst architect” and the “best of bees.”⁷⁸ The most pervasive interpretation and appropriation of this theory of causality in the Western intellectual tradition emphasize the act of creation as the active imposition of form on passive matter. According to this understanding, *culture* would actively give shape to materials—or *nature* (Ingold 2012:432). The emphasis on a preformulated design and the passivity of materials corresponds to “the perspective of a man who stands outside the works and sees what goes in and what comes out but nothing of what happens in between, of the actual processes wherein materials of diverse kinds come to take on the forms they do” (Simondon, cited in Ingold 2012:433). It is no surprise that this ideology is a crucial mechanism for the constitution of the field of architecture in the most diverse contexts.

In what follows, I develop a historical ethnography of the social life of Cecap Guarulhos, the most important housing project developed in São Paulo in the 1960s and an important experiment in terms of the practices and discourses of the brutalist program for low-

⁷⁷ Hylomorphism, in Aristotle’s work, is part of a theory of causation. According to the philosopher, in order to explain anything, it is necessary to account for four causes: the *material cause* (that from which something is generated), the *formal cause* (the structure that matter realizes, for instance, the shape of a statue), an *efficient cause* (the agent responsible for imposing a certain shape on a quantity of matter), and a *final cause* (the goal or purpose of what is being explained). According to this theory of causality, any material thing can be understood as a compound of form (*morphê*) and matter (*hylê*) and the process of creation and the moment of bringing together these two dimensions (Aristotle 1980).

⁷⁸ “A spider conducts operations that resemble those of a weaver, and a bee puts to shame many an architect in the construction of her cells. But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality. At the end of every labour-process, we get a result that already existed in the imagination of the labourer at its commencement” (Marx 2013:198)

income housing elaborated within the culturally dominant sector of the field of architecture in the mid-twentieth century. Instead of seeing the socio-material history of architecture as one of a constant clash between the designer's expectations and the realities of construction and use of spaces—or of the interests of designers and the given social and economic limits—this chapter develops an analysis of how the built environment is continuously produced through intersecting practices of design, construction, and habitation.⁷⁹

Cecap Guarulhos as an assemblage of clashing interests

Cecap Guarulhos is one of the most important modernist housing projects in São Paulo. This project, commissioned by the Caixa Estadual de Casas para o Povo (State Fund of Housing for the People—Cecap) was designed by a group of eminent architects (including Artigas himself) who understood it not simply as a set of buildings with housing functions but as an experiment and a platform for the industrial development of the country. For those reasons, it works as a high-profile case for the experimentation of many of the social and spatial utopias developed in the field of architecture in São Paulo as well as an example of many of its shortcomings, frustrations, and contradictions. In this project, the idea of “design” was presented as a manifestation of a larger understanding about the importance of planning and as a limited, but conscious exercise of the architectural avant-garde toward the liberation of the “people” and the development of the “nation”—the two most important tropes in the progressive political repertoire of the 1950s and 1960s. Nevertheless, an analysis of the practices of construction, the relationship between the architects and the state, and the

⁷⁹ A methodological caveat is due: although I develop a historical ethnography of the three moments of the life of Cecap, I was faced with the limits imposed by the lack of balance in the historical record and memories of the individuals involved in this history—particularly the paucity of available narratives of construction workers.

expectations of the new tenants allows me to provide a more detailed picture about the many projects and practices at play in the definition of that project. The guiding role of design and the desire to use the project as a platform for the industrialization of construction—that is, to convert Cecap into a true technical, material, and political laboratory—preached by the architects involved in this project were only partially shared by the other actors that took part in the “social life” of that housing complex, particularly the state and the future residents.

Cecap Guarulhos—also known by other names, such as Cecap Zezinho Magalhães, Cecap Cumbica, and Parque Cecap—was planned as a city within a city. When complete, the project was to have 10,519 units. For the sake of comparison, the infamous Pruitt-Igoe project in Saint Louis, one of the largest in the United States, totaled 2,870 apartments, and Queensbridge Houses, the largest housing project in the United States, is composed of 3,142 units. Those 10,519 apartments comprising 176 buildings were to be divided into eight different subcomplexes called *freguesias*. Inside each one of these complexes, the design team planned to build ensembles of eight buildings that would form condominiums, a type of micro-neighborhood, each one named after a Brazilian state (for example, Condomínio Paraná, Condomínio Rio de Janeiro).

The architects and planners involved in the project calculated that, when finished, the project would house fifty-five thousand people—a population larger than 94 percent of Brazilian cities at the time. It was to have the same dimensions of the mythical Conjunto Urbano Nonoalco Tlatelolco in Mexico City—the paradigmatic case of the ideology of public housing via state intervention in Latin America in the 1960s (McGuirk 2014). Although Brazilian BNH would fund larger projects in the 1980s, Cecap Zezinho Magalhães attracted

the attention of state agencies, construction companies, the media, and, of course, the entire field of architecture in Brazil—and in São Paulo in particular.

The project's size was not the only reason for the general excitement that Cecap raised among progressive architects and planners. The involvement of some of the key names in the field in São Paulo—particularly Artigas, who had been arrested by the military regime a few years before the commission and who would be compulsorily retired from his position at FAU-USP while he worked on Cecap's design—made this project a unique *laboratory* for the practices of design and construction that had been rehearsed on a smaller scale or only discursively in the previous few years. The project was meant to ignite a process of rationalization of the construction industry that, in the most optimistic estimates, could transform housing design and construction in Brazil. Artigas expresses this excitement very clearly:

Have you ever wondered how much innovation a project like this will foster? The national industry—from floors to finishing as well as piping—may receive orders for more daring projects; it may test them and rest assured of a solid market—the 10,500 apartments in this project. And after a project like this is tested on such a scale, who may have doubts of its success? (Folha de São Paulo 1971:12)

The political repertoire of national developmentalism and its translation into semio-material practices of design and construction in the 1950s and 1960s provide the background for such vivid excitement concerning Cecap's potential. Industrialization of construction was a crucial part of the progressive architect's mission in that context. In a 1964 speech, Artigas emphasized the centrality of housing as the ideal space for architects to pursue the social function of architecture:

From a progressive perspective, we cannot believe that the valorization of the artistic work of the architect needs to contrast with a background of slums and huts. On the contrary, I dare to predict that in a not too distant future the architect's field of activity will have expanded to serve humanity so deeply that everyday objects, the ones with the most ephemeral lives, as well as the widest urban and regional landscapes will be objects of our enthusiastic manipulation, of our creative activity. (Artigas 1981:36)

In this passage, it is possible to see the double position that the problem of poverty and housing occupies in Artigas's thought. The housing question is certainly present, given Artigas's concern with the contrast between the "artistic" of the architect and the background of poverty inscribed in the material environment of the city; at the same time, the moment of intervention is postponed to a not-distant future, when architecture would be a force of industrialization. The design of Cecap, for which Artigas was commissioned in 1968, seemed like an almost ideal opportunity to allocate to the present that moment of intervention.

That would not be devoid of contradictions. During the late 1960s and early 1970s, the military regime imposed an unprecedented level of repression against militants, students, intellectuals, workers, and any individual or institution that opposed its rule.⁸⁰ At the same time, the federal and state governments promoted a "conservative developmentalism," with a higher public investment in the construction of all sorts of projects, from highways and dams to housing complexes and urban infrastructure. This growing investment in construction provided new work opportunities even to some of the most persecuted architects in São Paulo, such as Mendes da Rocha and Artigas.

Cecap was not the only large project that Artigas elaborated during those years. In 1973, in his project for the restructuring of a central public space in São Paulo (Anhangabaú)—which was never completed—Artigas showed the same kind of optimism about the potential of expanding his intervention beyond the scale of the single-family

⁸⁰ I provide more details of this political context in the next chapter.

house.⁸¹ The project, which could have become a significant intervention in a key public space and transportation hub in São Paulo, also pointed to this politics of scale. In the project's justification, Artigas and his team assert that “up to now, we have contributed with isolated works in small spaces, some of which have a significant flavor, to be sure. Now, it is time for an interested avant-garde to accord itself the mission of organizing the metropolis: the happiness of a people is measured by the beauty of its cities” (Artigas 1973). So, the same regime that arrested and persecuted intellectuals, workers, and activists also afforded those professionals a few new opportunities. In most cases these architects did not work directly on projects conducted by the federal government, which commonly transferred resources to state and municipal agencies, which coordinated investment in construction projects, such as housing.

Nevertheless, to the chagrin of the key architects involved, the project for Anhangabaú would never be built, and Cecap would never have the initially proposed size and scope. In the mid-1980s, when the last apartment complexes were built, Cecap had 4,680 units—less than half of what was initially planned. Also, the piecemeal construction did not provide the necessary scale that would have imposed the need to build an industrial complex that could supply Cecap, as well as other projects, with prefabricated materials. Most of the housing complex was built with traditional materials and methods—although with some improvements, such as the method of concrete casting using steel frames, a faster technique of concrete curing, and the use of light wood panels on the internal walls. Most of the original plans, usually conceived for construction with prefabricated materials and rational methods, had to be adapted.

⁸¹ Artigas had already designed a few larger projects earlier, such as the Morumbi Stadium (1952–1960).

However, I propose that the focus on these limits and frustrations, commonly reinforced by the architectural critique and by several important players in the field of architecture at the time, must be seen as an “interested” frame. I am deploying the concept of *interest* here in the Bourdieusian sense: the stimuli for action that at least emanates from participation in a certain field and from the sharing of its “illusio.” The idea that a certain project is a failure since it did not fulfill the promises of its initial design is “presupposed and produced by the functioning” of the field of architecture (Bourdieu and Wacquant 1992:115). This analytical framework emanated from a certain sector of the field of architecture in São Paulo in the 1960s and was later reinforced by architects, analysts, journalists, and other actors who helped to strengthen the ideology of design in which this narrative is embedded. The construction of Cecap was the most advanced attempt to operationalize the “program” for low-income housing that emerged in the field of architecture in São Paulo in the 1960s. Yet this program is an analytical construct and not a depiction of actual projects, as I proposed in the first chapter: analysis of the construction of Cecap shows the partiality and interestedness of the narratives of all the actors involved—and architects in particular.

Military regime and the place of housing

The creation of Banco Nacional de Habitação (National Housing Bank—BNH), in August of 1964—only four months after the military coup that instituted the military regime in Brazil—was a preemptive act ahead of potential unrest in Brazil’s largest cities. This unrest could stem from the hardening conditions of life and the scarcity of housing for the lower classes in the largest urban centers (Bolaffi 1979; Fix 2011; Maricato 1987). The contraction of wages across most economic sectors (table 2) together with the continuous expansion of

urban areas posed a double pressure on the urban poor during the regime. The population of the city of São Paulo increased by six million from 1960 to 1985, and the entire metropolitan region increased by ten million individuals—a significant sign of the dimension of housing needs.

Table 2. Evolution of real minimum wage (1940–1985) (July 1940 = 100)

Year	1940	1950	1960	1970	1980	1981	1982	1983	1984	1985
Index	98.2	39.84	100.3	68.93	61.78	63.34	66.02	56.10	52.04	49.93

Source: (Sachs 1999:41)

The construction boom that BNH helped to foster was crucial to incorporating part of the growing urban population into the job market as well as to creating the generalized illusion that even the poorest of urban dwellers would be able to afford a house for the first time. The bank provided credit for the construction industry through other public and private banks and for municipal or state agencies (such as Cecap, in São Paulo) that were directly responsible for commissioning and building housing projects. BNH was funded mostly by a tax that was instituted in 1966 (Fundo de Garantia por Tempo de Serviço, or the Warranty Fund for Time of Service), created with the purpose of protecting workers in cases of unemployment or other cessations of their work contracts. So this financial arrangement helped to consolidate the real estate market in Brazil at a time of wage contraction among the lower classes, but it also worked as a mechanism that transferred resources from the mass of workers to the middle classes, who benefited the most from the bank credits (Bolaffi 1979).

Just as important, the military regime understood the construction industry as a key mechanism in incorporating the growing undertrained labor force that expanded rapidly in the largest urban centers. This industry was to be the main governmentally subsidized channel to

“absorb labor,” as the First National Development Plan clearly stated (Farah 1996:25). The bank failed to deliver the initially proposed number of low-income units—and the practice of auto-construction in peripheral areas continued to be the most important form of housing provision. Concurrently, the bank’s directive to promote low-wage labor-intensive methods led to the perpetuation of traditional techniques and archaic methods of labor control at the construction site. BNH consciously hindered the promotion of the industrialization of construction methods and techniques and the development of Taylorist methods of labor management (Farah 1996:chapter 3). This process was part of a large strategy of economic growth with the maintenance of low wages that gradually led to the worsening of the already drastic situation of economic inequality in Brazil.

Nevertheless, the housing projects that the bank financed helped to promote the growth of the GDP throughout the military regime, and they also had an undeniable impact on the Brazilian urban landscape. These projects—although they were insufficient to address the housing demands of the working classes—still punctuate considerable portions of Brazilian urban peripheries.⁸² BNH, together with its state and municipal associates, also helped to exacerbate the problem of land occupation in Brazil’s largest cities, leading to the expansion of peripheral regions with deficient provision of public services and infrastructure (Santos 2009:124). It also contributed to an increase in the level of class segregation in the metropolis.

BNH’s policies were eminently oriented toward quantitative concerns—both in terms of the number of units that would be built and the new jobs that this construction boom would

⁸² One of these housing complexes, Cidade Tiradentes—arguably the largest and most populated housing project in Latin America—was built in the 1980s and 1990s and is composed of forty thousand units; today it houses around 220,000 people. Cidade Tiradentes is an extreme case, owing to its size, but it exemplifies crucial aspects of the official housing paradigm during the military years that has impacted the production of social housing ever since. (The complex was concluded after the closing of BNH.) The housing complex, located 35 kilometers (23 miles) from the center of São Paulo, is composed of seventy-four identical buildings, with apartments with an average area of 37 square meters (400 square feet), very precarious infrastructure, and limited public transportation. In other words, this is housing with no urbanization (Lavos 2009; Rolnik 2003).

create. The bank financed the construction of 4.4 million housing units from 1964 until its demise in 1986; only 13 percent of the invested resources were channeled to low-income housing, while the largest share was appropriated by the real estate market to the construction of units that only the middle and upper classes could afford (Sachs 1999:133). The newspapers and popular magazines of the late 1960s and throughout the 1970s are rife with advertisements for new apartment buildings in São Paulo, which was then in the midst of frantic horizontal (with the outwardly growing peripheries) and vertical expansion (with the new middle-class apartment buildings blossoming in the central neighborhoods).

In an official BNH publication, the then president of the bank provided an overview of the challenges the bank had to face: given the population growth rate, the bank needed to fund the construction of five million new housing units, as well as 1.5 million units to replace the decaying existent housing stock. This represented a potential market of “650 thousand houses a year. That is, on the one hand, an enormous financial effort, and a great market for the construction industry, on the other” (Bruna 1983:108). In the same publication, the bank’s president expressed what was considered a federal directive: housing construction should be a primordial mechanism of job creation—or, more precisely, of low-wage, low-skilled job creation:

In the construction sector, traditional means of production are preferred at this time, given the need to create jobs for the nonqualified workforce. Modern industrial methods of production, though, might be objects of study and experiment, but their use in Brazil is premature, also because they are usually more expensive than traditional methods that employ low-skilled, low-wage labor. The construction sector is the one that has more successfully fulfilled the need to create jobs, and it should continue to be for years a bastion of job creation in our country. (Bruna 1983:119)⁸³

⁸³ It is true that the bank financed a few experimental programs aimed at the rationalization of construction, such as the Centro Brasileiro da Construção—Bowncentrum (Brazilian Center for Construction—Bowncentrum), but those limited experiments hardly affected the general panorama of the construction industry (*Acrópole* 1968; Koury 2007).

In the political repertoire that oriented federal and state housing policies, the urban masses were understood as a potential workforce and only secondarily as potential owners of a house, which should be a bastion of the family's security. The government radicalized and provided an even more reactionary reading of the principles of citizenship that had been established during Getúlio Vargas's presidency—a regulated citizenship, since a stable job (even with declining wages) and, if possible, a house should work as an antidote to any revolutionary urge. But most low-income families continued to build their own houses at the urban fringes, largely without access to technical assistance or financial credit.

The ideology that sustained BNH's strategic decisions contrasts with one of the mythical calls of modern architecture: Le Corbusier's opposition of architecture and revolution. In a 1923 article, the Swiss master famously proposed that the rationalization of construction was crucial for the provision of low-income housing at large scale. According to Le Corbusier, the availability of (modern) houses would soften the revolutionary drives of the lower classes: "Architecture or Revolution. Revolution can be avoided," in his words (Frampton 2001:118). The federal government certainly understood that housing was a necessary mechanism to tame social animosity against the regime, but chiefly because under Brazilian conditions, in which large human masses moved to the peripheries of the largest cities and dealt with the housing problem by building their own houses with the techniques and materials available, the *housing question*, from the government's perspective, was actually a *job creation question*. From the late 1960s until the mid-1980s, the bank financed very few units for families who as a whole brought in the equivalent of less than what five minimum wage jobs would provide, a segment that accounted for 84.9 percent of the population in São Paulo in the mid-1970s (Maricato 1979). The federal government did not

support the segment of the population that needed new housing units the most: families at the bottom of the income distribution, in particular families who made less than the equivalent of 1.5 minimum wages a month—a sector that was officially left out of the BNH funding lines. That sector represented more than half of the Brazilian population at the time and a significant percentage of the urban population (Bruna 1983:117).

Cecap: Design process and ideas

The fact that the federal government was not directly responsible for the construction of the housing units it funded through BNH opened space for semiautonomous action on the part of state and municipal housing agencies—although they could seldom reverse the general regulations BNH imposed. That was the case in the state of São Paulo in the late 1960s, when the directors of Cecap could use its relative autonomy to propose an ambitious program of low-income housing.

This endeavor was carried out under the initial leadership of José Maria Magalhães de Almeida Prado. Zezinho Magalhães (image 16), as he was called, was a former mayor of Jaú, a small town in the state of São Paulo, and the president of the city's soccer club (XV de Jaú), who had the trust of the then governor Abreu Sodré (1967–1971). Magalhães is an interesting figure by all accounts. A member of an aristocratic family from a city in the São Paulo countryside and a longtime member of União Democrática Nacional (National Democratic Union—UDN), a conservative party during the years prior to the military regime, Magalhães is usually described as a pragmatic politician. Also, some of my interviewees liked to remember that he had family members in the Communist Party—arguably his brother—who must have provided a first channel of communication between him and Ruy Gama. Gama was

a leftist architect who worked in a state agency. He was hired by Zezinho Magalhães to work at Cecip and coordinate the planning and execution of Cecip Guarulhos. According to the memories of several architects involved in the project, Gama was one of the masterminds behind Cecip Guarulhos and was arguably responsible for appointing the progressive architects who would be involved in the design and construction of Cecip Zezinho Magalhães—the largest and most important of Cecip’s projects, named after the president of the agency after his sudden death in 1969.



Image 16. Public presentation of Cecip’s model. At the center are Cecip’s director, Zezinho Magalhães (pointing); Governor Abreu Sodré; and Archbishop Dom Agnelo Cardeal Rossi. Source: Arquivo Municipal de Guarulhos.

Cecip was a feeble, unimportant state agency before Magalhães’s presidency. During the twenty years since its founding, Cecip had built only eighteen houses for unionized

workers (Ficher n.d.). Magalhães had the ears of Abreu Sodré and a strong connection with key figures in the state and federal governments. Two of his first acts as Cecap's president were the incorporation of the large land lot where Cecap would be built, an area that belonged to one of the state banks, and the commissioning of a project to build more than ten thousand houses on this 1,780,000-square-meter (180-hectare) property (Cerávolo 2007:66) .

Magalhães and the state government recognized the importance of that region, which was strategically located in a key national corridor that connected São Paulo and Rio de Janeiro. The large piece of land was located 19 kilometers (almost 12 miles) from the municipality of São Paulo and was part of Guarulhos, a city in the metropolitan region that was predicted to grow frantically in the following years—a prediction that proved true. In 1940, Guarulhos had a population of only 13,439 people. In 1960s, this population had grown to 101,273 inhabitants. In 1970, during the first phase of the construction of Cecap, it had exponentially grown to 200,000 inhabitants and would reach 530,000 people in 1980, during the last phase of the construction of the project (Guerra 2010:23). Today, Guarulhos has the second-largest population in the state of São Paulo, with 1.3 million inhabitants.

This exponential growth was a chapter in the history of the expansion of São Paulo's peripheries and was critically marked by the same characteristics of other municipalities and neighborhoods at the outskirts of the metropolis: unplanned occupation, deficiency of basic infrastructure, and the dearth of affordable and decent housing. Cecap, beyond its potential importance in the desired process of industrialization of the housing industry, was to be an island of development in an unserved region of the metropolis (Guerra 2010:33).

Magalhães initially hired Fábio Penteadó to design the project. Penteadó was a respected architect trained at FAU-Mackenzie and his lack of known involvement with

politics was also a positive factor in his hiring. Penteado came from a wealthy family from Campinas and would not raise any political “red flag,” so to speak. But Gama and Penteado persuaded Magalhães to also hire Artigas and Mendes da Rocha. Artigas, together with Mendes da Rocha and Penteado, coordinated the work of a team of architects in an independent office, relatively distant from the inner workings of Cecap. They also had the support of other firms that provided sociological studies on the potential residents as well as technical assistance for the planning of the infrastructural systems of Cecap (urbanism, sanitation, and many others).

As we have seen in the previous chapter, industrialization was widely praised among architects in São Paulo in the 1950s and 1960s as the mediation between the housing question and the social question. It was also framed as a seed of national progress to which architects could contribute. Cecap was designed under this imagination. Apartment buildings and other facilities—which were to include six schools, a stadium, several shopping areas, a social club, and a hospital—were designed to be built through a rational process, employing prefabricated, light, concrete pieces (image 17).⁸⁴ In the system proposed for Parque Cecap, beams, slabs, stairs, and other smaller components would be precast in a nearby factory and assembled at the construction site.

The architects drew all the necessary pieces, which they expected would be cast in a concrete plant next to Cecap that BNH would fund. In the designing team’s proposal, this plant would produce pieces and materials not only for Cecap but also for several other housing projects in the region. The prefabrication would also represent an economy of 37 percent of concrete when compared to more traditional methods of construction, mainly due to the

⁸⁴ This method contrasted with the French system of prefabrication, employed in the decades after the Second World War in the construction of social housing (Cupers 2014). At least one member of the design team—Giselda Visconti—had studied the French prefabrication system in loco before working at Cecap.

possibility of fabricating thinner walls and more economic foundations and water and sewage systems as well as the fact that it demanded considerably fewer worker hours at the construction site (Ficher n.d.).

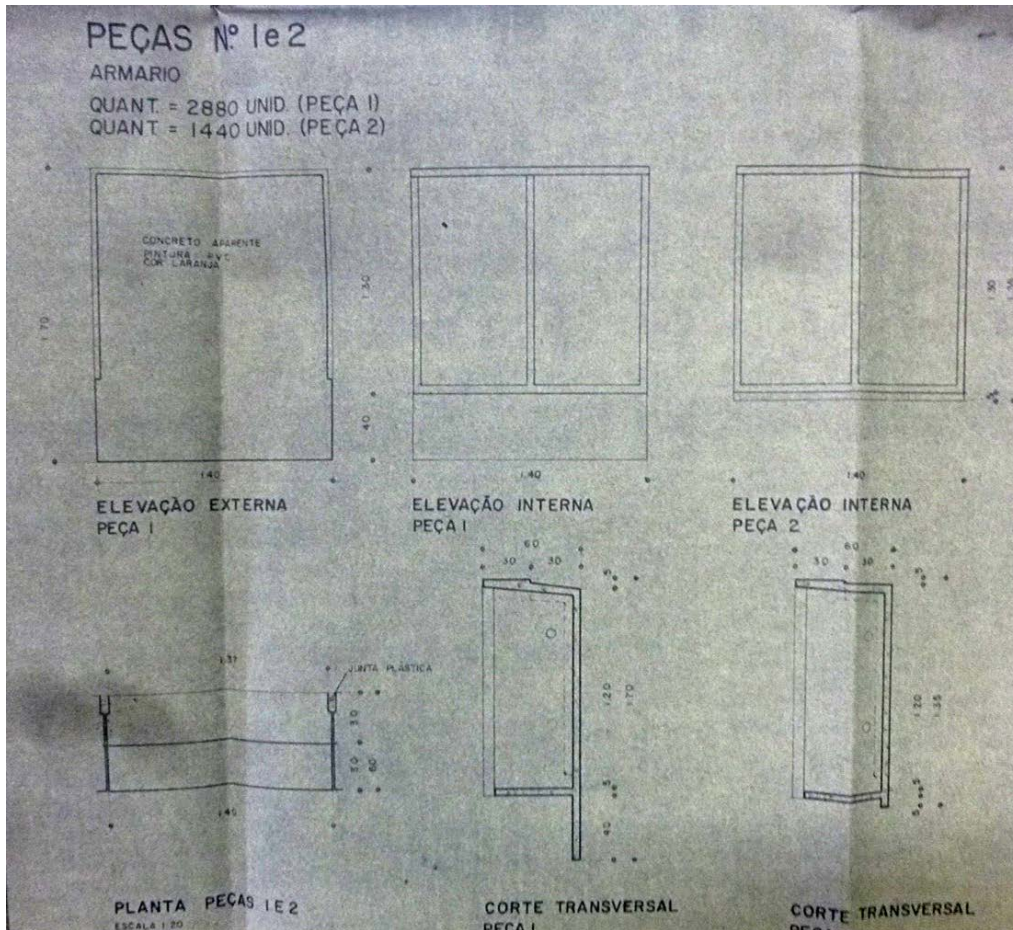


Image 17. Example of prefabricated pieces designed by Artigas' team—the drawer components, in this case. Source: FAU-USP Archives.

The project was to be composed of eight complexes—*freguesias*—each containing sixteen or thirty-two apartment buildings (960 or 1,920 apartments, respectively). The concept of the *freguesia*—a Portuguese term for a small administrative unit or a parish—was an attempt to bring some feeling of national identity into a modernist project, in response to the use of the concept of the *superquadra* (“superblock”) that was consecrated in Brasília.

Artigas, the nationalist, attempted again to underplay the debt of his architecture to international ideas and trends and also avoided using the concept of superquadra that so deeply characterized the urbanism of Lucio Costa and Oscar Niemeyer. All 176 planned buildings would have sixty apartments, each one with an area of 64 square meters (688.89 square feet). That was a very large area in comparison with the other projects for low-income residents that BNH financed at the time. The planned community spaces were designed to accommodate the population of the surrounding areas as well, allowing for agglomerations of up to 200,000 people (Various 1971). Thus, besides the push for industrialization, a second value oriented the planning and design of Cecap: the valorization of community life and shared public spaces. Both the development of the means of production and the creation of spaces of exchange, community building, and, potentially, progressive politicization were part of the political repertoire that was to be articulated into Cecap's design.

In a future interview, Artigas articulates these two dimensions of that political repertoire: "I was always sure that there would be a proletarian revolution and that development would result in the creation of a national industry capable of serving our people and rendering favorable the emergence of a working class, as it was envisioned by Karl Marx" (Xavier 2003:218). At least for Artigas, the community spaces and the unavoidable corridors that the design team proposed, as well as the industrialization dynamics that Cecap Guarulhos would trigger, were not to be architectural antidotes against a popular uprising; they would work as limited but hopefully effective instruments for its coming into being.

The project was deemed exceptional by many important architects and publications of the time. *Veja*, a popular Brazilian weekly, celebrated the fact that "in Guarulhos, Cecap ... will build 10,560 apartments (480 of which are already finished), writing with that the richest

and most colorful chapter of the painful history of social housing in Brazil” (*Veja* 1973b:92).

One of the most celebratory statements was published in the pages of *Acrópole*. Corona, the editor, reaffirmed the urgent task for the state to deal with the housing problem and to promote the industrialization of construction—almost synonymous in the architectural culture of the time in São Paulo:

[Architects and the technical team] created a magnificent design that will actually solve an important problem, and it will do it unquestionably. This will be a definitive solution because it will make men’s lives better. They will be able to live in a better community, which is decisive for the future of a country. All this ... combined with intelligent design and a decent architecture ... make the Cumbica housing project the most important human, social, economic, and political achievement of recent times in Brazil. (Corona 1968:12)

Another *Acrópole* editorial would also emphasize that Cecap’s visibility reached an international audience, something quite uncommon for a Brazilian housing project: “Due to its high sense of perfection, it is being discussed in several countries, including the Soviet Union” (Corona 1968:11).

Architecture journals also emphasized the two most important principles that informed the project: the valorization of shared spaces and the rational design and construction methods that were to be employed in its construction (*Acrópole* 1970; Various 1971). Ruy Gama clearly indicated in a debate at FAU-USP in 1968, on the occasion of the release of Cecap Guarulhos’s project, that São Paulo offered a special opportunity for the much desired industrialization of construction: since Cecap built and sold houses for unionized workers, and given São Paulo’s position as the capital of Brazilian industry—concentrating 40 percent of national industrial production (Ficher n.d.)—as well as its housing deficit of more than 200,000 units, São Paulo had the necessary conditions for the definitive development of industrial methods of construction (Various 1971).

Other members of the design team, such as Paulo Mendes da Rocha, noted very early that any principles underlying Cecap should be balanced by the material and economic limitations at hand. He noted that these conditions were also cultural: the design should take into account the habits and traditions of Brazilian family life but should also be flexible in accommodating each of the families' needs and expectations. Mendes da Rocha argued that the project should not disrupt the traditions and habits of incoming families, many of which he believed would move from rural areas (Various 1971). The extent to which the apartments should be malleable to the families' plans was a topic of contention in a debate involving several of the architects that designed Cecap and students and professors at FAU-USP in 1968. In this debate, Professor Candido Malta brought up a limitation of the project: somehow, Cecap would be born old, despite its modern style and conception, since it would not be flexible enough for possible future transformations of society regarding habits of living and consumption.

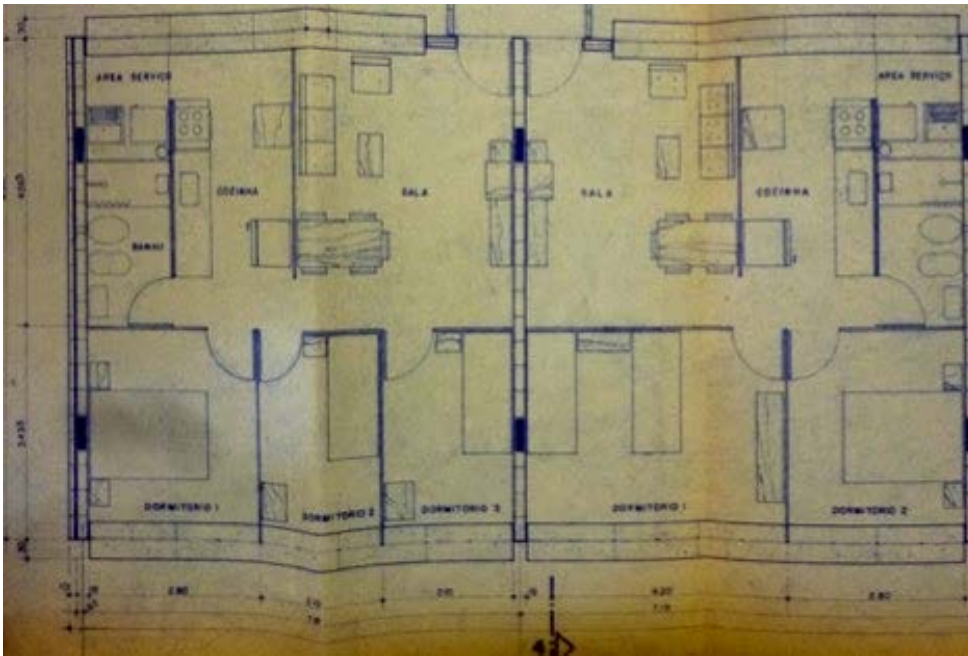


Image 18. Plans of two typical apartments, with three (left) and two (right) bedrooms, a living room, kitchen, bathroom, and a laundry area. Source: FAU-USP Archives.

It is clear, then, that the project had to balance two contrasting principles: flexibility to the (imagined) user's demands, on the one hand, and the expected conditioning to new forms of living in an environment of progressive architecture and urbanism. In order to convert these principles into plants, blueprints, and other apparatuses of design, Artigas and his team had to rely on their mind's eye and on available data on the expected future residents. The team also had to negotiate—rhetorically and in the translation between discourses and the repertoire of design—these different imaginations about the future dwellers and about “the people,” more broadly.

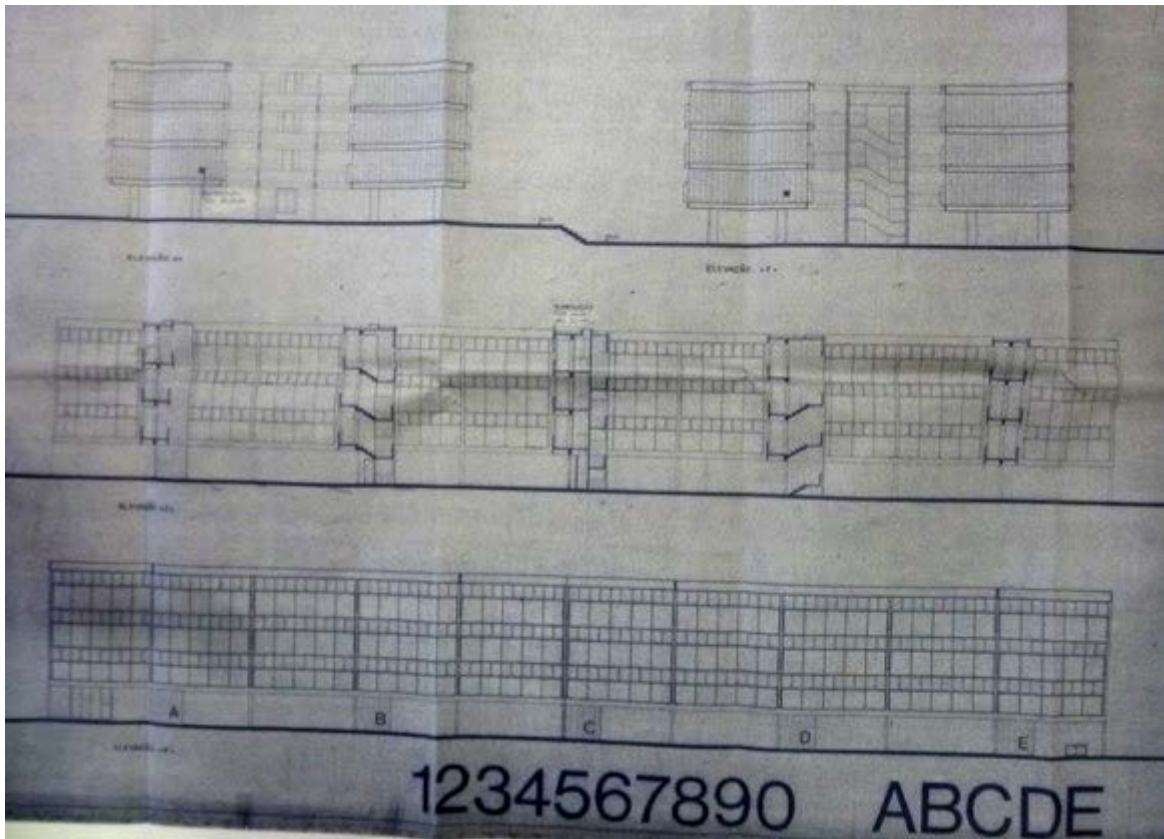


Image 19. Building elevations. Source: FAU-USP Archives.

Who will live at Cecap? Negotiating imaginations about the people

Cecap imposed a few requirements for the purchase of an apartment. These conditions delineated the first vision concerning the future residents that informed the design team. Apartments were to be sold to unionized workers, and they were not to exceed 60 square meters (646 square feet)—although they granted an exception in the case of Cecap Guarulhos, where apartments would be 64 square meters (689 square feet). Workers with lower salaries would have preference; other criteria included time of unionization, number of children, and time living in São Paulo (Various 1971).

The design team also made use of sociological research for getting to know more about the potential residents. This research, conducted by Eugenia Paesani, debunked a few of the initial impressions of the architects. For example, Artigas and his team proposed that the units be delivered equipped with all basic appliances, such as ovens and fridges. They even sketched some of these items and started to plan for their future production. Nevertheless, Paesani's report indicated that potential buyers already had access to those items, purchased at standard stores. The lower middle class and the working class benefited at the time from the expansion of the Brazilian market and national industry and could have access to these basic items—a luxury until a few years earlier.

This lack of knowledge about basic consumer habits of the potential buyer highlights the distance between the field of architecture and the daily experience of the working class, as I showed in the previous chapter. This distorted view was remedied during the design and construction process, but those amendments did not radically change the architects' perspective on their connection with “the people.” Marina Heck, a social sciences student at

the time, who worked as a secretary to the designing team, remembers that the political potential of the sense of community that the project tried to instill was a central issue for the architects:

They thought they were changing the world.... They used to interpret what people needed, what they desired. That has always been a discourse at FAU and of architects more generally.... The real people have nothing to do with that utopia: “BNH was giving us the chance to make houses for the people, and we had the idea that the people would meet up on those little corridors and that that would change the world.” All of that was a little bit according to the Communist line of the time. And I think the old euphoria that the architectural trace would change the world was still present.⁸⁵

Heck’s recollection of the general euphoria that marked the design team—perhaps slightly colored by the distance between the moment of the interview and memories of the late 1960s—points to the imagined articulation that Cecap would enable: articulation between the vision of a potentially disruptive people and the availability of spaces where this potential could be actualized. It also points to the ideology of design that prevailed: the idea that architects could foresee the tendencies and potentials of that sector of the population and incorporate incentives for historical accomplishment in their designs.

There was another matrix that also informed the planning and design of Cecap. A contrasting image of the people appears in the advertisements that circulated in several media vehicles at the time. Those ads show a very distinct image of “the people”—namely, of potential buyers. They appeal not to the image of a destitute working class and evidently not to any potentially disruptive population. Instead, they mobilize commonsensical images of model middle-class families, who could appreciate the benefits of living in a calm neighborhood surrounded by green and with ample space for children to play. This is reflected in one of the names under which Cecap was advertised: Parque Cecap (Cecap Park). The

⁸⁵ Interview with the author.

image of Cecap as middle-class garden city was reinforced by renderings that combined a feeling of the peacefulness of a typical suburban neighborhood with the modernity of Cecap's design.

One of the ads (image 20) shows a young couple embracing in front of two of the planned buildings; the main line of the ad points out confidently that “seu sonho aconteceu”: “your dream came true.” The main aspect of this dream, of course, is the “dream of an owned house”—“a sonho da casa própria,” a common epithet of respectability and attainment of dignity in Brazil that all potential buyers could easily recognize and relate to. Another ad directly and humorously appealed to the desire for home ownership: it proposed that “instead of envying other people's houses, buy a house that others will envy.” During those same years, BNH reinforced on TV and in newspaper ads the conception that the ownership of a house would be the pinnacle in terms of family security as well as a sure path to societal integration and social peace. The motto “segurança da família” (“family security”) was repeated on TV ads showing the new projects that BNH financed throughout the country.

minimum wages or more.⁸⁶ Also, the apartments sold in the late 1970s had an even higher value, since the land prices at Cecap increased considerably with the installation of public facilities and services, with urban improvements, and with the increasing demands for housing in Guarulhos. During the second phase of the project, initiated in 1972, buyers earned the equivalent of between three and six minimum wages—an average of 5.13 minimum wages.⁸⁷ This population of unionized workers were part of an emergent lower middle class that could afford an apartment at Cecap Guarulhos. That was considerably above the intended income of the potential public that the design team imagined—and it would still change considerably in the same direction in the following years.

Construction as pragmatic space making

The land where Cecap would be built was occupied by around thirty-eight families before construction. It was damp terrain, almost a swamp according to the narrative of several individuals involved in construction. One of the workers who participated in Cecap's construction and who later bought an apartment at the complex remembers that “there was a lot of farming here earlier, and this soil had to be replaced. So we had to replace layers of soil two, three meters deep. Everything was flooded and the houses that existed here were precarious; they belonged to the farmers who lived here.”⁸⁸ So the construction of Cecap

⁸⁶ The design team was conscious of the possibility of such a process: Artigas, at the FAU-USP debate, argued that the replacement of the initial population by families with higher incomes was almost inevitable and was a process commonly observed in Brazil and other developing societies (Various 1971).

⁸⁷ That corresponds to around 3,000 reais, the current Brazilian currency, or around 1,000 USD at current values. I would like to thank Gabriel Dib for his help with these calculations.

⁸⁸ Several quotes from residents in this chapter—the ones without other sources identified in the text—were extracted from life history interviews collected by Tiago Guerra and the team of researchers that he coordinated in a project on the oral history of Cecap. Extracts of these interviews were published on Guerra (2010), but Guerra also generously granted me access to all the interviews in their entirety. Although the book includes the

began with the dismantling of these farms and the removal of those families and clearing of the terrain. Some of the interviewees reported that those were mostly Japanese families who were initially housed in provisory housing by Cecap and would have later left.⁸⁹

The first eight apartment buildings were commissioned in 1970 and built using traditional methods and materials after BNH's decision to fund the project only partially—despite the efforts of BNH's president to show his support for cooperation with São Paulo's government (*Folha de São Paulo* 1972). In Penteadó's view, the main reason for BNH's refusal to fund the industrial facilities required for the industrial production of construction pieces and materials was precisely the bank's mission of providing new jobs in the construction industry (Various 1971). It is unclear, based on the available information, how the decision process inside the bank and the federal government led to limitation of the investment that could eventually enable the construction of this industrial park. Very likely, lack of interest in the industrialization of construction provided the reasoning behind the final economic decision of financing only a fraction of the initially planned units—a de-escalation that rendered impossible the initial proposal of industrialization.⁹⁰

This was the first serious blow to the plans of building Cecap using rational processes and industrial materials: without the incentives of scale that could ensue from the commission of the entire project instead of a small fraction of it, the proposed methods of construction

names of these residents, I decide not to identify them in this section, since I had access to unpublished parts of their interviews.

⁸⁹ Unfortunately, I could not find any further information on those families or on their final destinations in the extensive archival material that I had access to or in the literature about Cecap and Guarulhos.

⁹⁰ It is virtually impossible to have a better assessment of the internal mechanisms of decision making within BNH: its archives were almost completely destroyed in a fire in 1986, the same year the bank was closed. Some scholars suggest this was arson, especially in response to many accusations of corruption against the bank and many of its directors (Maricato 1996).

would be prohibitive in terms of cost.⁹¹ The designers' expectations clashed with BNH's policies. The installation of the industrial park that would have made Cecap possible never had the full support of the bank. BNH argued that it would have required an extremely large amount of resources and, once in place, it was uncertain if it would produce prefabricated materials and equipment for other projects.

The first stage of construction lasted from 1968 to 1972. Thirty apartment buildings were built during this phase (1,800 units), all of them with traditional methods. These blocks form the only freguesia that was completely built (Cerávolo 2007:97). During the second stage (1972–1976), sixteen new blocks were built (960 units) with a few changes in construction methods and components. Stairs were prefabricated at this stage, and some of the slabs were adapted, owing to defects that were found on the first built units (Cerávolo 2007:102). The construction company responsible for the project started to make use of metallic frames and the new, faster method of concrete curing. The third and final stage of construction took place from 1978 to 1981, during which thirty-two blocks (1,920 units) were built, with a few changes in the fabrication of some components, such as stairs and cabinets (Cerávolo 2007:109).

Before the first phase of construction, the design team had to redraw all the pieces and components, which maintained most of their design features but were adapted to construction with concrete cast at the construction site and other traditional methods of construction with concrete—using those usual “tiny wood frames,” in architect Giselda Visconti's words. Only in the second phase were some of the components prefabricated, such as stairs and pilotis,

⁹¹ The investment to assemble an industrial concrete factory—estimated at 15,000,000,000 cruzeiros at the time—would require an annual production of five thousand houses in order to recover the initial investment (Ficher n.d.).

which were produced using steel forms (not wood forms, as in the more traditional and widespread uses of concrete) (Isaac 2007:54).

Some very vocal architects were disappointed by the adaptation of the project to traditional construction methods, together with other aspects of the project that some considered unimpressive or disappointing. Sérgio Ferro remembers his initial disappointment:

Almost all of us expected the opposite: given the scale of the project, we expected that Artigas could initiate a process, if not on industrialization, at least a passage to heterogeneous manufacture.⁹² It was not possible—and we didn't know at the time that it was not a consequence of Artigas's position but a result of impositions of economic games. But I remember that before we debated the project we walked by the model a little silent, a little embarrassed. And sad, in a certain way. It was almost as if he belied his own political position.⁹³

In his exam for full professorship, in 1984, Artigas reflected on the clash between the expectations of designers and the conditions imposed by economic constraints:

Zeze Magalhães set in Guarulhos is very interesting because it is designed for 50,000 inhabitants and, with the team, which was very large ... I had to design urban equipment for the whole population. We estimated a pyramid of ages, we saw how many ten-year-olds, how many seventeen-year-olds would live there ... and put together all the social facilities needed to justify each apartment. I have the impression that it was the only project in Brazil done in these conditions. But it turned out what always happens in general: the apartments were built and sold and our equipment designs were not made.... This is the way we build our city, always as a function of the market, of the sale of space in that way. (Artigas 1989:79)

⁹² Heterogeneous manufacture is the concept used by Marx to describe a type of production in which components are manufactured separately and then assembled into the final product. Marx's primary example of this type of manufacture is watchmaking (Marx 2012:14)

⁹³ Interview with the author. In the same interview, Ferro mentioned that he would learn later that the adaptations that had to be carried out in terms of Cecap's construction method were a consequence of BNH's decisions on how to fund the project.



Image 22. Aerial view, 1975. Source: Arquivo Municipal de Guarulhos.

Inhabiting Cecap (1970–1990)

Most of the families who initially purchased apartments at Cecap were civil servants—bank clerks, teachers, and administrative staff in several state departments. Apartments were fairly affordable for those families, according to most of the narratives of some of the first residents. The majority were newlywed couples; in most cases, the husband usually worked in São Paulo, and the wife more commonly worked at home.

For many of these initial families, the delays in construction of the complex represented a significant burden they had to deal with in some way or another. Some of them reported that a few families occupied some of the blocks before they were finished, against the recommendations of Cecap's administration. One of these residents remembers that

I was the second tenant at Paraná.... There was nothing; it was total chaos. I remember it was a Saturday when I got the key, because I paid rent. I was having a hard time paying for it. My wife wanted the house, we had a three-year-old daughter, and CDHU⁹⁴ did not want to hand me the key. Then I said, “I’ll live under the apartment block anyway, without the key or anything.” I did not have the keys for a week or gas for more than a month. But we had a gas lamp and a gas stove.... We did have water though.... I moved to block 13 before Cecap was finished, and I could see some candlelight on block 15.... I went there, and the guy said, “They did not want to give me the keys, so I came to live here anyway.”... Later, everybody started to come, most of whom were young couples.

Inhabiting Cecap involved an adaptation and a negotiation with its modernist environment, which most families were not familiar with. Many of them were living in apartment blocks for the first time—which required some adaptation in itself. The austere modern design of the housing blocks and their almost industrial-looking materiality caused confusion among most of the families, who were not often used to this type of built environment. At the same time, Cecap’s modernist lines and the philosophy of community life that it proposed attracted a few of the initial families. One of the early residents mentioned that the project attracted her and her husband “because it was Artigas’s, because of the model, because of the community work, because of the idea of Cecap itself. We fell in love because of what we saw ... because we were idealists too.”

Most of the families would move from the city of São Paulo, and several of the residents had to commute to work daily. This was one of the main complaints of the first families at Cecap: not only were there few bus lines that connected the project and downtown São Paulo, but the housing blocks also were surrounded by mud most of the time. Another old resident recalls that “we had to cross over there to take the bus on Dutra, and we had to deal with all that mud.... When we arrived at Luz Station, we took those muddy shoes off, put

⁹⁴ Companhia de Desenvolvimento Habitacional e Urbano do Estado de São Paulo (São Paulo State Company for Urban and Housing Development).

them into a bag, and then put clean shoes on. People at the place where I worked used to tell me: you don't live, you hide! Because it was far from everything.” Another resident evokes those difficulties: “When we moved here, we had to take the bus to the city on Dutra Highway, and there was a treacherous swamp between the housing complex and the highway. Very often I would leave home wearing old shoes; I crossed the swamp and changed my shoes by the highway” (Folha de São Paulo 1973:12).

During those years, most of the dwellers worked in São Paulo—Guarulhos was not the large urban center that it is today, and the nearby airport, which later attracted many new waves of residents, was not inaugurated until 1985. The daily commute between Cecap and central São Paulo was rather challenging. The distance from the city and the lack of local businesses also made the prices at the makeshift local stores—and later, the bakery and the local grocery store—artificially high, an issue that the Community Center and the local newspaper constantly mentioned.

This sensation of living in a distant neighborhood was rather shocking to several of the initial families, many of them used to living in central neighborhoods of São Paulo or in peripheral areas with easier access to more urbanized regions of the metropolis. This feeling also calls attention to some of the limits of Cecap as it was being assembled: a housing complex that was planned to be an independent city for most common urban services and activities, Cecap was experienced by the first cohort of residents almost exclusively as a residential neighborhood, a modernist dormitory town. That would be partially remedied in the late 1970s and throughout the 1980s, when a few facilities were built at Cecap, increasing the urban services available to the local population.

Thus, for the families who moved to Cecap in the early 1970s, challenges abounded. Floods were frequent, and the promised schools and other community services were built a decade after the first occupation, as a result of the organized efforts of Cecap residents. In this respect, the history of Cecap is a combination of the traditional forms of occupation of peripheral neighborhoods and the housing policies of the time—in relative autonomy from the initial intentions of the designers. Inhabiting Cecap then involved dealing with incompleteness and having to use the available political channels to demand basic infrastructure and amenities—an experience that was characteristic of most popular neighborhoods in São Paulo, as we have already seen.

The nearby airport—which would become Brazil’s largest and the second-most-important air hub in Latin America—was also a contentious issue for the first wave of residents. Most of them manifested strong opposition to the project. Many dwellers had serious concerns that the air traffic in the region would lead to unbearable noise, that it would shake the windows unceasingly and could eventually damage the structures of the apartment building. The Community Council campaigned against it, and the local newspaper published several articles alerting the public to the problems that it would bring to the community. These concerns and fears gave way to a more harmonious relationship with the new neighbor: the new airport raised land prices and increased the attractiveness of Cecap, as many current residents suggest.

The contrast between the expected and the actual dwellers was also an object of negotiation and action for the early residents. The class differences between the planned and the actual residents had spatial manifestations in the complex. One of the early residents remembers that “the first complex, São Paulo, was built so that only half would have garages;

the other half would not have any spot for parking. The other 50 percent were built by the dwellers. They built it like this because they thought that only half of the people here would have cars, because they would be low-income families who wouldn't be able to afford a car. But this changed, and today you see people with three, four cars, and we need more parking spots.”

In this context of struggle, negotiation, and adaptation, the Community Center was a privileged space of community exchange and socialization in the first decade of Cecap's occupation. It also was the space where residents organized the Community Council, the main organization responsible for representing the interests of the dwellers (Guerra 2010:55). The council was created at a time of increasing levels of organization in communities throughout the outskirts of São Paulo and was the key voice of the community in its negotiations with public agencies, including city hall. Many of the documents elaborated by the council, as well as other public manifestations of outspoken residents, show that they were aware of the distance between the project plans and the reality of Cecap in the early 1980s. An article published in a city newspaper, *Diário de Guarulhos*, in 1980 by one resident makes this very clear. In the article, Dalvio de Oliveira argues that many of the improvements at Cecap had been the result of the demands of residents, but still “very little of what was idealized by the architect Vilanova Artigas and promised to residents at the time of the purchase was fulfilled” (Guerra 2010:59).

The Community Council was just one of the manifestations of community life at Cecap in the 1970s and 1980s. Many old residents remember the existence and the dynamism of other organizations and community activities, such as carnival parties, frequent soccer matches, and a “Mothers Club.” This club had an important presence in the lives of several

women at Cecap, many of whom did not work outside the house and had to deal with the limited options for leisure and community engagement that Cecap had to offer at the time. Moreover, one of the main demands of Cecap's community was the construction of schools and day-care centers. The Mothers Club worked initially as a provisional school, funded partly by the community and partly by the city government. But it was also a space for women's organization and socialization. One of the early organizers claims:

If you think of family configuration and the social issue of women's participation in the 1980s, everything was really different... So much so that, for example, activities that we developed at the Mothers Club were intended to raise consciousness among women, to make them participate in theater and other things, to make them open their minds to other activities, to reading, and that was a revolutionary thing at that time.

The Community Center was not the only actor involved in mediation between the residents and the public and private agencies involved in the construction and management of Cecap. As many of the old residents report, a diversity of internal and external individuals and organizations intended to play the role of mediators—and to benefit from this position, in many cases. This intensified in the mid-1980s, a time when—as we will see in the next chapter—political activism grew throughout Brazil, and very significantly in São Paulo's peripheral neighborhoods and neighboring municipalities. During the 1970s and 1980s, several individuals intended to run for public office as the “Cecap candidate”—some of whom were members of Arena, the conservative party.



Image 23. Cecap Zezinho Magalhães, 1970s. Source: FAU-USP archives.

The intense community life that Cecap's design was intended to instill was also received with discomfort by some of the residents, who claimed that it was bothersome to have everyone's eyes turned to them when they purchased a new car or when they arrived late at night (Guerra 2010:113). But some of the modern features pleased the residents, such as the open spaces under the buildings, which were used as parking spots and playgrounds for the children. The fact that the internal walls of the apartments could be removed and replaced was also a positive attraction (Guerra 2010:114).

Monteiro Lobato Avenue cut Cecap in half—but it also defined the geography of construction and occupation as well as, for a long time, the social imagination of the residents. The “old-timers” of the condominiums of Minas Gerais, Bahia, Rio de Janeiro, Espírito Santo,

Alagoas, and Sergipe had experienced a more intense community life and faced many of the initial challenges that the “new residents” of São Paulo, Paraná, Rio Grande do Sul, and Santa Catarina would face (Guerra 2010:82). Also, the apartments were considerably pricier in these new condominiums inaugurated in 1977, which created a certain social strain between the residents on each side of the avenue.

Until the 1970s the fact that the complex was not surrounded by fences and other apparatuses of security was seen as an advantage. A 1973 news story reports that “lots of things are still missing in these open and colorful blocks, which are often visited by students and authorities, but the dwellers do not complain about three of these things: There is no gate to the complex. No doorman. And no police station” (Veja 1973a). This would change in the next two decades, when residents began to demand and later accomplish the construction of security fences, gates, and the hiring of private security personnel to guard Cecap Guarulhos. This was not just a local process: starting in the 1990s, gated communities multiplied in Brazil, and the language of fear and security became widespread in all sectors of Brazilian society (Caldeira 2001).

In 1977, Cecap had a population of ten thousand people. Some of the first buildings started then to present structural problems, which the Community Council brought to the attention of Cecap authorities. One of these authorities argues that “with such low installments that the owners of apartments in our housing complexes pay, of course, the construction material could not have the highest quality. And it is always better to live in a place with basic infrastructure than in the middle of nowhere,⁹⁵ paying rent that is usually higher than the installments for an owned house. Of course, we cannot offer a paradise to the low-income purchaser” (Folha de São Paulo 1990:19). This negligence on the part of the state agency

⁹⁵ “No meio do mato,” which can also be used as a derogatory expression for the countryside.

repeats a common trope in the official treatment of the condition of projects financed by BNH: the quality of the product is the least important aspect to take into account. This disregard could be sustained, given the overwhelming strength of the ideology of private house ownership, which also marked the public imagination and public discourses. In that same article, some of the dwellers of Cohab Guaianazes, another project financed by BNH, mention that “at least we are paying something that will eventually belong to us” and “we are poor, so we cannot demand too much” (Folha de São Paulo 1990:19)

In 1980, Cecap was closed. IAB lamented this fact, which could lead to the loss of the technical expertise developed at the agency (Folha de São Paulo 1980b:4). In the same year, a very significant story was published at *Folha de São Paulo*—one of the clearest manifestations of the deception that Cecap had caused in many social circles. The story, titled “It Was Supposed to Be a Model, but It Is Only a Failure,” narrates the common tale of discrepancy between the project plan and its realization. “The work of famous architects, Parque Cecap Guarulhos was to be the Brazilian model of public housing. But ten years later, it is just a jumble of unfinished buildings” (Folha de São Paulo 1980a:4). The story describes several problems of infrastructure as well as the discrepancy between the expected incomers and the actual dwellers:

The mortgage is well above what was expected for a housing development for workers. To get an idea, the apartment (three bedrooms divided by drywalls) costs 1,025 thousand cruzeiros on average; that is a price that is nearly double the 100 minimum wages recommended by the planners. For applicants, thus, a household income of 28 thousand monthly cruzados is required (the installment is now almost 10,000), which is an amount that not every worker makes. (Folha de São Paulo 1980a:4)

The residents’ demand for a decrease in the monthly payments, which were growing at a higher rate than the average wages of Cecap Guarulhos residents, was constant during the

1980s. This same story also mentions that the dwellers decided they would hire a private company and pay for the pavement of the streets that served two of the condominiums, a demonstration, according to the author, that “dwellers are showing that the idea that in places like that people destroy more than they build is a myth” (Folha de São Paulo 1980a:4) The elitist myth of the lower classes (and, in this case, the lower middle classes) as barbaric elements, which the author dismisses, is indeed a distortion of the reality, as the material history of São Paulo would attest. In the case of Cecap, the dwellers in the first few years of its occupation still took into their own hands several other responsibilities that, at least in theory, should have been the states’, such as mowing the lawn in collective spaces and paying for the pavement of internal and surrounding streets.



Image 24. Cecap Zezinho Magalhães today (photo by the author, 2012).

Conclusion: Cecap as a (failed?) laboratory

The life history of Cecap Zezinho Magalhães—its design, construction, and use—is a story about the articulation of circuits of practices, not a story about the external limitations of the initial intention of its designers. The later frame is certainly important, because it orients the narratives of some of the architects involved as well as other members of the field of architecture in the ensuing years. The trope of “design *versus* economic and political constraints” is dominant in the field of architecture in several different contexts. It is a central element of the ideology of design, being part of the narratives of actors working in all sort of commissions, and deeply marks the culture of the profession, as well as some of the most popular narratives on architecture and architects.⁹⁶

This general structure of the ideology of design, which raises the circuit of practices of design as the foremost “moment” in the production of the built environment, as its kernel of truth, is structurally similar to what Bruno Latour (Latour 1999:92) describes as the externalist model of science, in which a purified core (“science”) is defined in contrast to external factors, or “social context,” which are then framed as intrusive or limiting to the scientific activity. The boundary work (Gieryn 1999; Star and Griesemer 1989) in architecture entails a purification of the initial design intentions of architects from the other circuits of practice that condition the life the built environment. This ideology strongly orients the self-understanding of architects and frames most discourses mobilized to legitimize its practice, as well as a considerable proportion of academic analyses of architecture (Lipstadt 2003; Whyte 2006).

⁹⁶ For example, Ayn Rand’s *The Fountainhead* is a clear example of the pervasiveness of the ideology of design (Rand 2007). In the popular book, which played a key role in defining the image of the architect in the United States, Howard Roark, a maverick designer, refuses to compromise his ideas and plans or to yield to the economic and aesthetic demands of his clients. More recently, the ideology of design took shape in the increasing importance of 3-D and other forms of high-tech “rendering” in architectural education and publicity, a tendency that reinforces the status of architecture as image (Archdaily 2012).

Was Cecap a laboratory, as many of the architects, engineers, and a few politicians involved in the project expected at the time? Or, in the logic of these agents, could it have been one, had not the initial intentions and plans been “subverted” by political, financial, and technical constraints? In order to answer this question, we need to look at the idea of a housing project as a “laboratory” and what this metaphor entails. As I showed in the last chapter, Cecap is not the only project that was framed as a laboratory, an experiment/experience (“*experiência*,” in Portuguese). All significant projects conducted during those years were described as such, but usually with less fanfare than Cecap. This was also the case in the housing projects built in the 1980s and 1990s by a different “epistemic community” (Epstein 1996; Knorr Cetina 1999) of architects and communities in a regime of self-built construction, as we will see in the next two chapters. But the case of Cecap is a crucial articulation under the contours of the first such program—the modernist, brutalist program for low-income housing, of which it was the most important accomplishment in terms of housing construction in São Paulo, although it was a disappointing one to many members of the field at the time and even today, as some of my interviews attest.

The literature on science and technology studies has investigated the internal mechanisms of “truth making” in the sciences and has conceptualized laboratories as primordial “truth spots.” Laboratories are places where the inside becomes separated, somewhat artificially, from the outside, avoiding natural and human contamination; they are “placeless places” that allow scientists to advance claims about the generalizability of their findings outside their walls (Gieryn 2006). It is important to note that Gieryn provides this definition of a laboratory because he has a certain kind of lab in mind, more engaged in research than in development. We could argue that a different type of lab—think of Bell Labs,

for example—is set up not as a truth spot, but as an *innovation spot*. Its goal is not to produce generalizable claims but to alter reality with the creation of new materials, practices, and technologies. That is, such a lab is set up to generate new devices as well as new practices that these devices could activate and sustain. So the logic of its organization and the type of rhetorical justification for its existence and functioning are not the need to create “placeless places” protected from the “outside” but to create *high-intensity places* that could “contaminate the outside.”

Therefore, an important dimension of the *built environment as a laboratory* is the politics of scale that it entails. The limited experiments of this kind of lab, given the particular conditions that allow them to become high-intensity places, would, it is hoped, enable an extrapolation of the materials and practices developed at those sites to a much broader scale. Thus, the rhetoric of the housing project as a laboratory depends on the assumption that it could work as a knot (Latour 1999) of circuits of practices that could generate new concepts, practices, and materials that could later be replicated elsewhere; it would be a special knot then, because it could potentially work as a gateway between the single and the multiple: a high-intensity knot. The metaphor of the laboratory as an innovation spot meant that Artigas and the other important actors involved in the project saw Cécap as an opportunity to recreate the repertoires of each one of the circuits of practice that were involved in its constitution by means of a new articulation of materials and practices, in a highly favorable situation.⁹⁷

First, these actors were invested in helping to put in place a new *design* template for low-income housing. No housing project with this scale had ever been designed by relevant

⁹⁷ As Bruno Latour has shown in many of his works, the work of articulation does not leave the articulated materials and practices unchanged. This is a central argument in this work as well: as I proposed in chapter 2, the pragmatic articulation of materials, plans, designs, constructive practices, and ideas potentially transforms—usually in the long term—each one of these elements and circuits of practice.

members of the field in São Paulo, so Cecap provided an opportunity to generate design innovations. The demand for such innovation was also evident at the FAU-USP debate and was expressed in criticisms of the project for not having innovated “enough.” The level of originality or adequacy of Cecap’s design is a matter of debate in the field of architecture up to the present, as I observed in some of my interviews.

Second, the project was expected to transform *construction* technology in Brazil. Its proposed scale would have demanded the creation of an industrial plant that would manufacture the pieces and materials not only for Cecap Zezinho Magalhães but also for several other housing projects in the region. Although the second phase of construction advanced with the use of some prefabricated materials, those were made on site, with no substantial transformation of the capacity of producing and standardizing new pieces and materials for other projects. So the semio-material repertoire of construction did not experience the radical impact that most of the key players expected.

Finally, in their most hopeful moments, some of the architects expected to radically change people’s lives (their *habitation*, broadly understood) with the project—initially the future dwellers’ lives and later the lives of all individuals who would potentially benefit from the design and technical innovations that could spill over from there. This last aspect is more controversial than the previous two. Although the lives of the dwellers have been affected throughout the years of living at Cecap, the type of intense community arrangement that fed the imagination of the architects involved in its design had only a limited existence in the 1970s and probably in the early 1980s. Dwellers perform the continuous task of forming new assemblages with one another and with the built environment, beyond and sometimes contrary to the expectations of designers. For example, several architects I interviewed expressed their

disappointment with the construction of security fences surrounding each condominium during the 1990s as well as with the widespread use of the open spaces under the buildings almost exclusively as parking areas.

As in any other housing project, dwellers brought to Cecap Guarulhos their own spatial and social repertoires; the capacity of the built environment to condition new life arrangements is limited, to the chagrin of the most ardent proponents of the modernist ideology of the transformation of society via the transformation of the built environment. Dwellers kept changing Cecap over the years, especially with the introduction of security apparatus, with reform of their own apartments, and by inventing new uses for the available infrastructure. Also, the population at Cecap itself changed (mainly when compared with the initially imaged profile of the families who would occupy those apartments). Today, around fifteen thousand people live at Cecap and around 81 percent of the resident families are apartment owners (Isaac 2007:19). By all accounts, the sociability of Cecap today—with the overwhelming prevalence of the private over the public and with the presence of material and human apparatuses designed to separate it and protect it from the outside world—is very similar to many middle-class closed communities that have been built in São Paulo metropolitan region in the past three decades (Caldeira 2001; Rolnik 2003).



Image 25. Parque Cecap, surrounded by a security fence (photo by the author, 2012)

Should then Cecap be considered a failure? It is certainly true that it did not fulfill the expectations of some of its proponents. But an analysis “from outside” should not incorporate the exclusive standpoint of the architects—or the standpoint of a certain sector of the field of architecture. “Failure,” or “deception,” in this case, are some of the “native” categories that have been attached to the project—although, more commonly, the project is described today as a successful, sought-after neighborhood, with rising prices and, according to all the recent accounts that I heard, with satisfied dwellers. Guarulhos municipal administration also considers Cecap a stable, consolidated neighborhood (Isaac 2007:64).

For the purposes of my argument, it is important to point out once more that in the life of the built environment, the common analytical process of comparing expectations of designers with final outcomes is a logical mechanism that reinforces the ideology of design, helping to erase all other agencies involved in the continuous production of those environments. The ideology of design is a “structuring template circulating through channels most easily materialized by techniques—paper techniques and, more generally, intellectual techniques” (Latour 2007:196) and reinforced by the dynamics of the field of architecture. Those techniques—plans, models, discourses on the social function of architecture, and so on—are part of the multidimensional social struggle that I have analyzed in the last three chapters: the struggle for the autonomy of the field, the dispute within the field that pitched the modernist sector against the academic sector at first and the commercial sector later, and the political struggle of “building a nation” and constituting a “people,” of which architects were one of the many parts. That was the common trope in the contemporaneous analyses of Cecap, as I have shown.

The ideology of design was at the center of the work involved in the process of autonomization and in the consecration of a dominant sector of the field in São Paulo in the 1950s and 1960s, with echoes that can still be heard today—and Cecap, as a late manifestation of a first program, helped to reinforce that program, at a moment in which the political repertoire of the left and the field of architecture in São Paulo were changing rapidly, with lasting impacts on the program for low-income housing—as I show in the next two chapters.

CHAPTER 6

Emergent repertoires (1970–1990s): Construction site, labor, and the articulation of a new program

Architecture and politics in the 1970s and 1980s: Openings and reconfigurations

The military regime imposed a huge cost upon the field of architecture across Brazil. In São Paulo, this burden had several manifestations, including what has become a symbol of the persecution of progressive intellectuals: the expulsion of some of the most significant architects of the period from the University of São Paulo, particularly João Vilanova Artigas, Paulo Mendes da Rocha, and Jon Maitrejean, together with other leftist academics, such as the sociologists Florestan Fernandes and Fernando Henrique Cardoso, in 1969 (Associação 2004). In addition, the political atmosphere the dictatorship created, especially after the federal government issued Institutional Act no. 5 in 1968 (Ato Institucional número 5, or AI-5)—which eliminated several legal guarantees (such as habeas corpus), allowed the president to close down congress, and furthered the persecution of alleged “enemies” of the regime—significantly hindered critical reflection on architecture in São Paulo. That took place at a time when the themes of public housing and industrialization of construction were gaining traction. The major journals in operation over the previous decades—in particular *Acrópole*, which interrupted its publication in 1971—either closed their doors or significantly limited the number of issues they published.

At the same time, the political repertoire of the left was being dismantled, since some of the main organizations that propelled it (such as the illegal but operative Communist Party, unions, and the progressive sectors of academia) were either closed or became the target of persecution. From 1964 until the end of the regime, in 1985, the state was responsible for the assassination of approximately 430 individuals⁹⁸ and for arresting and torturing around eighteen hundred others. Also, the dictatorship either collaborated in or turned a cold shoulder to the death of thousands of rural workers and indigenous people who stood in the way of developmentalist projects that had the government's blessings—such as the destruction of natural forests in the north and northwest for the expansion of agriculture or for the construction of Transamazônica, a 4,223-kilometer (2,624 miles) highway that crossed the Brazilian Amazon from the coast to Peru and Ecuador (Schwarcz and Starling 2015:53–4). Thousands of intellectuals and activists were exiled. Artigas, after one month in prison in 1964, fled to Uruguay in 1969, where he spent a few months before returning to São Paulo. Several younger architects also fled the country in order to guarantee their personal safety.

In this context, some practices and trends of the previous period began to make way for a new political awareness among young architects that would eventually lead to the renewal of architectural practice in the following years, especially on the issue of social housing. To be sure, this did not happen in a political and social void: the left, in all its manifestations and despite being cornered and persecuted, reflected on the windows of opportunity and strategies of opposition to the regime. Also, the problem of the urban came to occupy a central place in discussions of social scientists in the city, as can be seen in a growing number of works that took the city of São Paulo as a key example for understanding

⁹⁸ The most systematic study mentions 434 individuals who permanently “disappeared” or whose deaths were confirmed (Comissão Nacional da Verdade 2014).

the social and political dynamics under way in the country (Arantes 2009; Cardoso and Singer 1975; Kowarick 1976:76, 1997). Urban social movements would become key political actors in the process of democratization during the late 1970s and throughout the 1980s.

After the crisis of the 1970s, this series of emergent practices inaugurated a state of deeper and more frequent connections between architects and the peripheral population of the city. In the late 1970s, architects and urban planners created the first significant channels directly connecting the architectural field and the experience of the population of São Paulo's peripheral neighborhoods. These initial attempts included the publication of a study on popular self-constructed housing by Carlos Lemos and Maria Ruth Amaral Sampaio, an academic critique of the “popular home” that the architect Sérgio Ferro carried out—a critique associated with his earlier constructive experimentations, together with Rodrigo Lefèvre and Flávio Império, in what was called *Arquitetura Nova* (New Architecture)—and a new routine of frequent visits on the part of professors and students to peripheral areas of the city that became characteristic of the teaching of architecture in the 1970s at FAU-USP. This first set of contacts with lower-class areas and peripheral populations became associated with a critique of projective, constructive, and professional practices that marked the dominant school of São Paulo architecture, as well with the housing policies of the federal government, at a time when the military regime was promoting the largest national program of housing construction in history through BNH.

This new assemblage of individuals, materials, and techniques significantly shook the old national-developmental political repertoire associated with the brutalism of the 1950s and 1960s within the field. This emergent political repertoire (Williams 1978) became steadily associated with a semio-material repertoire of practices in architecture that embraced

experimentation with and enhancement of traditional materials and techniques, recognition of the political nature of the construction process, valorization of methods of participatory design and construction, and self-management of construction projects by the communities that would benefit from them.

The articulation that led to this program was possible only given the opening of political opportunities (Eisinger 1973; McAdam 2010) for social movements with the decay of the military regime, the reorganization of important players in Brazilian civil society in the years before and during the process of the drafting of the new constitution (1988), the emergence of the Workers' Party in 1980 (Partido dos Trabalhadores—PT), and the election of the first democratic and progressive governors and mayors in São Paulo in the mid- to late 1980s.

The early emergence of a new program for low-income housing derives from this twofold historical transformation: the crisis and reconfiguration of the field of architecture in São Paulo in the 1970s and 1980s and the transformation of the dominant political leftist repertoire during the same period, particularly with the emergence of new urban social movements in the 1970s and 1980s and the cycle of protests that took place in Brazil during the mid-1980s. My argument is that neither of these two processes is sufficient to explain the dissemination of practices of self-management, participatory design, and collective self-construction in association with architects that became widely diffused in São Paulo throughout the 1980s and in the early 1990s, which I analyze in further detail in the next chapter. Here, I focus on the first of these two processes. I initially present *Arquitetura Nova*, an early critique of the dominant brutalist program in the mid-1960s. In addition, I show how the military regime and the reorganization of the left in a situation of political repression led to

the disarticulation of the previous dominant political repertoire of national developmentalism. After that, I reconstruct some of the most important transformations within the field of architecture in São Paulo, which was severely disarticulated throughout the 1970s, a situation that allowed for the development of new perspectives on the role of design and construction techniques and an enhanced connection with the user.

Arquitetura Nova: an early critique of brutalism from within

In the mid-1960s, a younger generation of radical FAU-USP architects began to question the political, semiotic, and constructive tenets of the dominant brutalist program. The most representative members of this emergent trend were the architects Sérgio Ferro, Flavio Império, and Rodrigo Lefèvre who, starting in the early 1960s, began to work together in what became known as *Arquitetura Nova*. The group advanced a partial break from the architecture of brutalism and, in several aspects, a radicalization of its material and constructive propositions.

Ferro, Império, and Lefèvre produced a constructive architecture based on the radical visibility of traces of labor on concrete, a more democratic construction site—in which the workers' agencies, at least in theory, were to be welcomed—the use of simple techniques and materials, and, in several projects, the unification of internal spaces under an arched roof. This arched roof, according to Ferro, was a design and constructive solution for architecture in the context of poverty—even if all their projects were designed for the same upper-middle-class clientele for whom Artigas, Mendes da Rocha, Joaquim Guedes, and other dominant figures built (Image 26). According to Ferro⁹⁹ and recent commentators (Arantes 2011; Koury 2003),

⁹⁹ Interview with the author.

the arched roof effortlessly distributes the weight of the roof throughout the structure owing to its shape, so no expensive steel frame is required in the construction process (image 27), leading to a reduction in the costs of construction and a simplification of the technique.



Image 26. Dino Zammataro House, Rodrigo Lefèvre, 1970. The image shows important elements of Arquitetura Nova: the arched roof, the visible structures, and the emphatic indexicality of labor in the use of mortar. Source: Unknown Photographer, 1970s, FAU-USP archives.

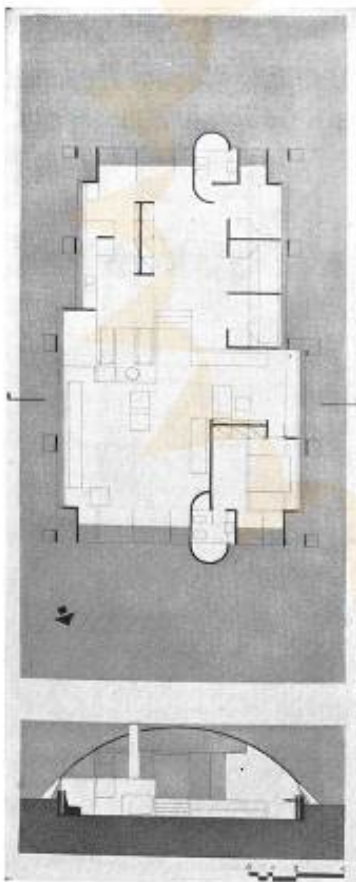
The traces of labor, which radicalize the semiotic mechanism analyzed in chapter 4, shifted the focus from the metaphorical dramatization of national contradictions to an attempt

to draw the user's and the observer's attention to the agency of the construction worker. Traces of labor should be understood as a manifestation of an impetus for de-fetishization of architecture—a local and limited, but semiotically sustained, cry against the denegation of labor via erasure of agency (Ferro 2010; Gell 1998). Ferro's later systematic theory of modern architecture would devote central attention to the processes through indexes of labor are denegated in modern architecture—a process that, according to him, finds a particularly key manifestation in the work of Oscar Niemeyer, in which covered and painted surfaces hide the processes of production of edifices and their inner structures, denying the agency of workers and reaffirming the agency of the architect.

In other words, this architecture that hides the workers' hand, according to Ferro, reinforces a repertoire of semio-material practices in which design is elevated as the single most consequential practice in the production of the built environment. According to these architects, the elimination of the indexicality of labor reinforces the ideology of design and degrades other moments in the history of the built environment. Ferro combined a Marxist theory of labor and Peircean semiotics to posit this architecture as a modality of collective activity in which the traces of labor (or, in Peircean language, the indexes—Ferro 2006) would still be present and visible in the final building, in opposition to the modernist dream of producing buildings with no traces of the work processes.



Fotos: Luiz Kupfer



projeto: Sérgio Ferro, arquiteto
 construção: Cempia
 proprietário: Bernardo Issler
 local: Granja Vianna, Estr. de Cotia

A melhor técnica, em determinados casos, nem sempre é a mais adequada. Há mesmo situações em que a modernidade construtiva é fator secundário. Enquanto não for possível a industrialização em larga escala, o déficit habitacional exige o aproveitamento de técnicas populares e tradicionais. Sua racionalização, despreocupada com sutilezas formais e requintes de acabamento, associada a uma interpretação correta de nossas necessidades, favorece, não só o surgimento de uma arquitetura sóbria e rude, mas também estimula a atividade criadora viva e contemporânea que substitui, muitas vezes com base no imprevisto, o rebuscado desenho da prancheta.



Image 27. Page of *Acrópole* special issue on Arquitetura Nova. Casa Bernardo Issler, Sérgio Ferro. Source: *Acrópole* 319, July 1965.¹⁰⁰

¹⁰⁰ The description, probably written by Ferro, Lefèvre, and Império, reads: “The best technique, in some cases, is not always the most adequate. There are situations in which constructive modernity is a secondary factor. While large-scale industrialization is not possible, the housing deficit demands the use of popular and traditional techniques. Their rationalization, unconcerned with formal subtleties and finishing refinements, associated with a correct interpretation of our needs, not only favors the creation of a sober and rude architecture but also

If the “new architects” maintained many aspects of the material and visual programs of São Paulo brutalism—particularly the use of raw materials and unfinished surfaces—they also developed a “pedagogy of the project” that challenged the modernist paradigm of the previous decades, since it proposed a break from the deep-seated hierarchies between architect and worker in the design process and in the organization of the construction site, a hierarchy that had been reaffirmed in the constitution of the local field of architecture.

Arquitetura Nova proposed that the construction process—not design, as Artigas and most modernists would argue¹⁰¹—was the most relevant moment in terms of the definition of architecture as a social, political, and aesthetic practice. This novel way of looking at architecture not only entailed different practices of design and construction—more democratic, less hierarchical and collectively creative (Lefèvre 1981)—but also required the rewriting of the entire history of architecture from the standpoint of the construction site, according to Ferro (Ferro 2010). At the same time, Ferro proposed an original perspective on the practice and politics of architecture that, although it was influenced by certain moments in the history of modern architecture,¹⁰² also established a conversation with many tendencies in modern theater and arts that placed special value in the process of making and in the materiality of the artistic object—the theater of Bertold Brecht and the many variations of

stimulates the live and contemporary creative activity that replaces, usually based on improvisation, the refined design from a drawing board.”

¹⁰¹ Ferro, nevertheless, emphasizes that Artigas’s architecture—as well as the work of other central figure in the field—was deeply constructive when compared with international (such as Le Corbusier) and national (Niemeyer) counterparts. He argues that Le Corbusier’s brutalism is characterized by a serious divide between the discourses that valorized the processes of construction and the exposition of structures and the reality of the construction sites (Ferro 1987).

¹⁰² In several passages and in several public lectures and classes that I attended, Ferro praises Antoni Gaudí’s architecture, in general, and his Sagrada Família construction site, in particular, as an alternative to the traditional modernist construction site (see also Lira 2006). He also points out his appreciation for the work of William Morris, as well as his theory of craftsmanship.

action painting of the post–Second World War avant-garde easily come to mind (Clark and Clark 1999; Greenberg 1988; Jameson 1984; Roberts 2007).¹⁰³ In all these manifestations of art and architecture, the materiality of labor through its indexical presence is rhetorically reconstructed as a symbolic manifestation of a more democratic arrangement of agencies.

The tension between Artigas and the architects of *Arquitetura Nova* as well as the repercussions of these frictions in the field in the 1970s were also related to teaching. Some of these younger architects were involved in the creation of new departments of architecture in the late 1960s, such as the Santos School of Architecture. In this department, professors attempted to develop innovative teaching methods that included activities in which students could work with local communities in designing their houses and working on urban plans. Ferro clearly expresses this tension: “Teaching, in Artigas’s terms, implied much more the prospection of new paths of development—architectural, technological, etc., so a kind of architecture that could be almost exclusively made inside the school, with lots of research labs, etc. And we were certain of the opposite: in the present conditions, it was already possible to act on social needs.”¹⁰⁴

In spite of their theoretical novelty and political potential, the experimentations of the “new architects” did not directly impact the practices of construction for the lower classes anywhere in Brazil. Most of the experimentations with practices of more democratic

¹⁰³ Recently, Ferro extended his theorization of architecture to the analysis of painting and sculpture (Ferro 2015). Based on Peircean semiotics and Marxist labor theory (and on his own experience as an architect and painter), Ferro argues that while the most important development in painting in the past hundred years has been the active indexicality of the artist’s labor, architecture has strongly resisted indexing labor in the material production of the built environment. Ferro argues that while in painting the hand that works is the artist’s hand, the hand that works in architecture does not belong to the designer of the product being produced. In other words, while in painting there was a tendency to celebrate the hand of the worker/painter (think of Jackson Pollock, for example) through the traces of their labor, in architecture there has been a negation of almost all indexicalities of labor. For a brief analysis of the connection between Ferro’s theory and practice and Brecht’s epic theatre, see Schwarz (2015); on Brecht, Jameson (2011).

¹⁰⁴ Interview with the author.

construction sites were carried out during the 1960s in the construction of a few houses for progressive middle-class intellectuals who sympathized with the aesthetic and political radicalism of Ferro, Lefèvre, and Império. Nevertheless, their theories and experiments were cornerstones in the debates among students at the University of São Paulo in the late 1960s and 1970s, a fact easily attested to in the great number of student's journals, pamphlets, and zines that circulated in the period with analyses and comments on their ideas and buildings—particularly the four issues of student's journal *Ou... (Or...)*, edited at the University of São Paulo's School of Architecture in the early 1970s. Several of these students—particularly Ermínia Maricato, Nabil Bonduki and Jorge Oseki—would write their theses and dissertations in the 1970s and 1980s under the influence of those debates. This new generation of architects also used São Paulo as a platform, a live laboratory for the provincialization of (mostly French) Marxist urban theory.¹⁰⁵

Two politics of indexicality

The difference between Artigas's and Arquitetura Nova's indexicalities points to a division that has marked debates on the relationships between the construction site and the politics of labor within São Paulo's left ever since. As I mentioned earlier, Artigas's deployment of this material rhetoric is almost ironic in most cases, a consternated smirk as the architect faces the limits of architectural practice in these times. Given the impossibilities of a new society in the present, one in which the fetters that preserved the old and stifled progressive historical forces seemed sturdier than ever, the critical ironic gesture of metaphorically (that is, symbolically) representing this tension between the old and the new very often constituted the politics of the possible. This critical gesture had parallels in other

¹⁰⁵ On the provincialization of urban theory, see Robinson (2006) and Roy (2009)

cultural fields (particularly cinema and theater—Schwarz 2014): it characterized a method of stylizing the drama of a progressive intelligentsia in an underdeveloped country in the face of dwindling spaces of political participation and critical engagement. In the case of Artigas, as I have proposed, buildings with exposed concrete that bore the mark of their traditional methods of construction, or the tension between lightness and weight, are not a partial realization of a future, emancipated society but a critical artifact that points toward the obstructions to its realization. In this political repertoire that informs the semiotic mechanism of metaphorical indexicality, the future is inflated in face of a gloomy present.

In contrast, the few experimental projects designed and built by Sérgio Ferro, Rodrigo Lefèvre, and Flavio Império—which Ferro used as some of the bases for his theorization on art and architecture throughout his career—were intended to be signals of a *politics of the construction site*; in this sense, they do not point to the obstacles to emancipation, but they index more emancipated forms of labor experiments *in the present*, even if on a very small scale. The construction site is experienced and theorized as a space of political experimentation—a space of utopia, in the present.¹⁰⁶

The politics of the construction site, nevertheless, was doubly limited, since social relations cannot be completely revolutionized under the economic conditions that separated workers (and, later, workers-dwellers) and architects and because several material limitations had to be remedied in the practices of design and construction. This tension regarding the potential and the limits of the construction site as a political, progressive space still marks contemporary debates to our day (Carvalho 2004; Ferro 2006b; Lopes 2006b; Oliveira 2006).

¹⁰⁶ In a 1985 interview, Sérgio Ferro argues that the difference between the practices of followers of Artigas and Arquitetura Nova are, first, an exaggeration of those constructive and expressive tendencies, but he also suggests that “one group followed and refined Artigas on his formal side, in the organization of floor plans, the space, the use of concrete.... Our group followed Artigas in his political and ethical critique of previous architecture” (Acayaba 1985).

Then, Arquitetura Nova's critical architecture is not a complete break from the semio-material practices of design and construction of the 1950s and 1950s, in both their political and constructive dimensions—as someone could conclude when observing the student debates of the 1970s—, and even in their contemporary resonances. The experimental practices and the theoretical contributions of Arquitetura Nova, further disseminated through the debates between different sectors of the left among students in São Paulo in the 1970s, raised some of the issues that are at stake in the passage between the first, brutalist program and the participatory-constructive program that would later emerge.¹⁰⁷

In short, the work of Arquitetura Nova, in its most advanced experimentations (such as Casa Bernardo Issler and Casa Boris Fausto), is an attempt to radicalize the repertoire of semio-material practices of São Paulo brutalism, together with the advancement of a political sensibility that attributes greater value to the *construction site as a place of emancipation* through the recreation of labor practices, transferring the temporality of politics from the future to the present. In a limited way—and under the influence of the political and intellectual radicalization of the mid-1960s—, Arquitetura Nova formulated some of the bases of a repertoire of semio-material practices that displaced the moment of design as the defining set of practices in the production of the built environment, promoting a partial shift of agency and power from the designer to the construction worker. Also, without giving up hope about the possibilities for the future industrialization of architecture, these new architects proposed a change of scale that accompanied the change of temporality: the construction site, even in

¹⁰⁷As I will argue later, the fact that these architects raised some of the issues at stake in the transformation of the program for low-income housing does not mean that the architects later involved with the formulation of that program were their disciples, despite the fact that Sérgio Ferro's theoretical work and Arquitetura Nova's buildings impacted some of the young FAU-USP architects in the 1970s. Nevertheless, I still argue that early critique helped to raise some of the limits of the dominant program and to raise the consciousness of a few key students to the importance of the construction site as a space of politics.

conditions of technological and economic underdevelopment, could be a laboratory of democratic practices.

Sérgio Ferro's work, despite its importance in theoretical discussions about the political nature and economic function of the form of exploitation that is common at construction sites in Brazil, would influence only a few of the young architects working with social movements—contrary to recent reassessments of the connection between his work and the tradition of self-build cooperatives (Arantes 2011). Nabil Bonduki and Ermínia Maricato, for example, were influenced by that critique later on, but many other very active architects working with those communities either knew very little about Ferro's work or did not find inspiration in his critique of the construction site. This is attested in many of my interviews, particularly with architects who had not been socialized in the disputes that took place at FAU-USP during the 1970s, such as Joan Villà and Joel Felipe, both graduated from Mackenzie, and Roberto Pompéia, who studied in Mogi das Cruzes. João Marcos Lopes, who studied at FAU-USP from the late 1970s to the early 1980s, also argues that his knowledge of Ferro's critique was fairly basic during his initial academic training, and he became acquainted with Ferro's work only much later in his career. Lopes mentions that some of his most important inspirations were anarchist theorists, new international discourses about housing and participation, and discussions of the student movement during the period at USP.¹⁰⁸ The experiences of Hassan Fathy in Egypt and John Turner in Peru, the work of the American architect Buckminster Fuller, the experiences with participative planning led by Christopher Alexander, and the experience of self-build cooperatives in Uruguay are mentioned in several of my interviews—although they seem to have worked more as a diffuse

¹⁰⁸ Interview with the author.

set of references and a type of critical political epistemology of design and construction and not as clear experiences to be emulated.¹⁰⁹

Rodrigo Lefèvre's master's thesis addresses several problems related to the connection between the politics of construction and a political repertoire that recognized the cultural, political, and constructive inputs of construction workers and communities, especially under the influence of Paulo Freire's *Pedagogy of the Oppressed* (Lefèvre 1981).¹¹⁰ But it is imperative to emphasize that the avant-garde works and discourses of Arquitetura Nova and the association between architects and social movements in the 1980s and early 1990s are not directly, causally connected: the emergence of the practices of participatory design, self-management, and auto-construction cannot be attribute to the limited, highly experimental practices of Arquitetura Nova, which can be seen as one local and specific "laboratory situation," similar to several other radical experimentations of the left in the 1960s (Jameson 1984:179), and would later become one of the sources for the reconstruction of the construction site as a potential space of liberation. Thus, despite these initial elaborations, this second program was possible only given the emergence of new urban social movements and with the reorganization of the field of architecture in the 1970s and 1980s, not owing to the intellectual influence of Arquitetura Nova's politics of the construction site—although that reflection still marked some debates and contributions in the field (Lopes 2006a, 2006b).

Crisis of a leftist political repertoire

The years between 1964 and 1985 were characterized by intense political repression in Brazilian society. The military regime enforced a conservative version of the repertoire of

¹⁰⁹ For a later elaboration on this set of international vectors that contributed to the renewal of the field in the 1980s, see Arantes (2011) and Lopes (2011).

¹¹⁰ Paulo Freire's pedagogy was an essential source of intellectual renewal for the left in Brazil starting in the 1960s, but also with the advent of the plethora of social movements in the 1970s and 1980s (Sader 2010).

national developmentalism, imposing an agenda of economic growth via state intervention—very commonly with the construction of heavy infrastructure, such as the gigantic Transamazônica Highway, several dams, airports, ports, and many other material manifestations of the supposed grandiosity of the country under the strong hands of the military, as the official propaganda emphasized daily on radio, television, and via all other possible means. This technocratic conservative program of state-led national development had the full support of several Brazilian industrialists, many of whom also provided resources through backchannels to fund the apparatus of repression, murder, and torture that the regime operated in the entire country (Schwarcz and Starling 2015:460). The regime also had the support of the majority of the news media, as well as cooperation from the US government—who, in its hawkish foreign policy during the Cold War, not only supported the movements that led to the coup but was also fully aware of the secret official and unofficial apparatus of persecution, torture, and death (Paraguassu 2014).

The military regime in Brazil was also marked by a struggle between different factions of the military in changing association with important sectors of civil society. Although the Armed Forces in almost their entirety supported the 1964 coup against a democratically elected president—a coup that also had the backing of a broad coalition composed of significant segments of the business sector, the middle classes, and most of the press—, different groups within of the military would occupy the presidency during the following 20 years. The first coalition that governed Brazil from 1964-1968 was more closely associated with a so-called “soft line” under the leadership of the first military president, General Humberto Castelo Branco (1964-1967). These “soft liners” were open to alliances with civilian politicians and depicted the regime as a transitional period during which the alleged

subversive tendencies of the previous democratic government (particularly its supposed association with the Communist Party) should be “corrected” before new elections could be called. On the other side of the divide, “hard liners,” especially represented by the second and third military presidents, Generals Artur da Costa e Silva (1967-1969) and Emílio Garrastazu Médici (1969-1974), defended a broader and longer process of national transformation under the military rule. Although censorship and persecution, arrest, torture, and assassination of members of the opposition occurred throughout the military regime, the apparatus of censorship and state violence increased considerably during the late 1960s and early 1970s.

If in the terrain of arts and within the cultural elite the left maintained its hegemony in the years immediately after the coup (Schwarz 2014),¹¹¹ it became deeply divided with regard to its political strategy. It was certain that the previous national developmentalist program could not work as a master frame for the left anymore, since collaborating with a reactionary and violent regime was not an option. The dictatorship established very limited official channels for the organization of the opposition: in 1965, through Institutional Act no. 2, it shut down all existing parties and created the only two official ones: Arena (Aliança Renovadora Nacional, the regime’s party) and MDB (Movimento Democrático Brasileiro, or the Brazilian Democratic Movement, the opposition). Some of the most important previous political leaders were arrested or exiled, including the deposed president João Goulart, former president Juscelino Kubitschek, and the leftist governors Leonel Brizola and Miguel Arraes. The Communist Party was devastated in the first few years of the regime: its main leaders and hundreds of individuals with known or alleged ties to the organization—as well as other known progressives, such as Catholic militants, union leaders, journalists, and members of

¹¹¹ At least until 1968, when the issuing of a presidential decree (the infamous Institutional Act no. 5)—a coup within the coup—triggers an even more brutal process of persecution of artists, scholars, and intellectuals.

leftist military clubs and associations—were arrested; many were tortured, killed, dismissed from their positions, or forced to leave the country. Around 4,841 individuals lost their political rights or were dismissed or retired by the regime.

Still, for some of the bearers of that previous repertoire, the regime offered occasional possibilities for action. This was certainly the case among architects, some of whom continued to benefit sporadically from the channeling of official funding to the construction industry—as we have seen in the previous chapter. But part of the left considered that the opposition could still make use of some of the limited spaces available in congress or in the highly censored media to exert pressure on the dictatorship. This was the case for the democratic, centrist representatives in congress led by Ulysses Guimarães and Tancredo Neves, as well as for several intellectuals and activists who tried to recreate organizations where some freedom of action and thought would still be possible, even if restricted. In academia, for example, some intellectuals who had been forcefully retired from the university created parallel research institutions—the most prominent case is Centro Brasileiro de Análise e Planejamento (Brazilian Center for Analysis and Planning—Cebrap), led by the sociologist Fernando Henrique Cardoso.¹¹² In the larger cultural terrain, protest against the regime acquired a central space in musical production, as well as in theater and occasionally on television (Napolitano 2006).

Nevertheless, this form of opposition within limited channels lived side by side, and in constant tension, with the emergence of guerrilla-style organizations, both in urban and rural areas. These small underground groups were composed mostly of students and professionals, as well as a smaller percentage of workers and low-rank leftist military officers (Ridenti

¹¹² The center, based in São Paulo, was funded by Ford Foundation and incorporated some of the most prestigious social scientists working in the city at the time, such as Lucio Kowarick and Francisco de Oliveira.

2010:68). These organizations promoted a radical break from the narrative of national development of the previous period, which relied on the idea of possible collaboration with allegedly progressive sectors of the national capital to foster industrialization. In fact, most of these groups were formed after the disintegration of the Communist Party in 1964 (Ridenti 2010; Schwarcz and Starling 2015:462).

The main idea behind their armed actions was to spread awareness of the oppression promoted by the regime, leading to an expected rising of consciousness among urban and rural workers and the possible emergence of an eventual popular counterrevolution. These groups adopted and re-elaborated a style of focused action that became influential in several leftist groups in Latin America during the 1960s and 1970s under the influence of the Cuban Revolution and Maoism (Debray 1967; Gaspari 2014; Guevara 1967; Jameson 1984; Ridenti 2010).¹¹³ Nevertheless, this break with the previous repertoire was only partial: the armed groups were still highly hierarchical and only in very few cases could they establish effective connections with lower-class individuals. Also, some of the armed groups still considered that a vanguardist party should be reestablished at some point in order to coordinate the political struggle against the regime and the ruling classes more generally (Ridenti 2010:37–41).

This division is clearly described by Sérgio Ferro, who became a member of Ação Nacional Libertadora (National Liberation Action—ALN), one of the most important armed groups, in the second half of the 1960s:

Regarding this point, Artigas's position—which was the Communist Party's perspective—and our position, which was more associated with ALN and other movements of resistance against the dictatorship, were completely opposite. The party ['partidão']¹¹⁴ thought that since the dictatorship was

¹¹³ Historically, this concept that an armed event could spark broader revolutionary action had resonated in certain sectors of the left since the French Revolution, in the tradition of Auguste Blanqui and Gracchus Babeuf (Eley 2002:25).

¹¹⁴ Literally, “the big party”, as the Communist Party is usually called in Brazil.

promoting the economic and technical development of the country, the best thing to do was to continue working in favor of the development of the productive forces and to continue to carry architecture forward as it was already known. Our position was the opposite of that: one of the first things that we noted, by reading Marx among other things, is that the schematic, evolutionist idea of the Communist Party—that is, it's necessary to go stage by stage, first developing the forces of production and only later transforming relations of production—did not correspond to reality.”¹¹⁵

Despite the importance of this illegal opposition in the transformation of the left's political culture, many consider their actions a tactical failure. First, the growing social awareness about the regime's oppression was a product of the advent of other forms of organization and activism from the mid-1970s to the early 1980s, such as the emergence of a “new syndicalism,” national campaigns for the return of individuals in exile, and the blossoming of new social movements throughout the country. Also, the actions of the guerrilla movements were used as a justification for the government to solidify its apparatus of oppression, leading to the intensification of political persecutions and the frequent resort to torture and murders in the late 1960s and early 1970s.

Crisis and reorganization of the field of architecture

The field of architecture in São Paulo suffered severe setbacks in the late 1960s and throughout the 1970s. The years between 1969 and the early 1990s were the most unstable for the field, and some of its members were directly affected by the military regime. In São Paulo, the persecution of some of the key members of the field led to a crisis in teaching, research, design, and critical reflection—as several of my interviewees pointed out. Artigas's compulsory retirement was, of course, the most symbolic manifestation of this destabilization. He returned to the university in 1979 only as a teaching assistant, having to submit to the

¹¹⁵ Interview with the author.

ritual of public exams in order to reacquire his position as a full professor in 1984, a few months before his death in January 1985.

In this dreadful political context, the academic left in the field of architecture, particularly at FAU-USP, became deeply divided. One of the groups was composed of defenders of “artiguismo” (named after Artigas), with a strong vision about the importance of design and acting as protectors of the vision of an architectural avant-garde as the vanguard of social and political development. The second was a small but active group of students who developed their own reading of the work of Sérgio Ferro and other Marxist theorists and their own reflection about the experiences of *Arquitetura Nova* (Arantes 2009; Ferro 2006a; Maricato 1999), in large measure centered on the critical limitations of the modernist vision of the role of the architect and the emancipatory potentials of design. The first group gathered around the student journal *Desenho* (Design) and the second around the paper *Ou...* The antagonism between the political and semio-material repertoire that had dominated the previous two decades, represented by *Desenho*, and the effort to elaborate new radical discourses represented by students in *Ou...* could not be clearer.

This tension also reflected, within the microsphere of FAU-USP, larger national divisions within the left (Ridenti 2010). The most important of these divisions regarded the potential of using the limited legislative political channels, such as the official oppositional party (Movimento Democrático Brasileiro), or to attempt to organize forces in civil society or among exiles against the regime; a second option was to resort to the possible use of arms against the regime’s forces as part of one of the illegal armed organizations that coordinated focused actions against governmental targets and foreign ambassadors and other similar armed operations.

Therefore, despite the military regime's incursion in different areas of cultural production and the limitation imposed on the freedom of organization and expression particularly after the issuing of AI-5 in 1968, its peculiar form of authoritarianism did not lead to a complete subordination of cultural production to the heteronomous logic of the field of power. In many cases, specific cultural fields had to adapt to the censorship imposed by the regime—specially between 1968 and the mid-1970s—, which restricted the production of films, books, newspaper articles, and other cultural works which were deemed politically subversive. But the political nature of architecture is particularly complex and, as I argue, usually not directly accessible from the physical nature of the architectural object itself.¹¹⁶ So, although the field lost part of its autonomy due to the advances of the authoritarian regime against the university and the cultural elite more broadly, architects could also benefit from the growing demand of large commissions from different state agencies. Even leftist architects in the previously culturally dominant sector could profit from to the clientele of the state, which did not impose any unsurmountable constraint on the repertoires of design and construction. Nevertheless, some of the younger architects which previously occupied the spaces of less notoriety within the dominant sector—such as Sérgio Ferro and Flávio Império, among others—decided to either leave the field (such as Império, who became a theater scenographer) or to explore other forms of engagement in somewhat related activities, such as architectural critique (such as Ferro and younger students and junior faculty at FAU-USP who were directly influenced by his work and by the radicalization of the left).

¹¹⁶ This is probably an important contrast between the field of architecture and other fields of cultural production, such as literature, for example, in which there seems to be a closer connection between the struggles in the field of power and the forms of position taking (literary styles, for example) of members of different region of the field, particularly in situations of political encroachment on the field (Sapiro 2014).

Therefore, in a situation of multiple crises—in the political realm, of the profession, of the field of architecture, and personal crises that affected many members of the field—but of growing demand from the state, the dominant subsection of the previous decades lost part of its political importance. The semio-material practices of brutalism continued to characterize the architecture of the most prominent members of the field, even if deprived of the political repertoire with which it was originally associated. Numerous of its previous solutions continued to be deployed by the generation of architects trained in the 1950s and 1960s, but without effective operation of the politics that had sustained it in previous decades.¹¹⁷ This routinization also impacted the production of larger public works in the city, such as many of the first subway stations built in the 1970s, which clearly bear the marks of the old dominant program. A considerable number of buildings in the 1970s and 1980s still reproduced the repertoire consecrated in the 1950s and 1960s—apparent concrete, unifying roofs, and exposed structures, among others (Penteado 2004; Wisnik 2004).

As we saw in the last chapter, the military regime created new lines of credit for the construction of housing units and other large scale projects. The boom in the construction industry at the time can be compared to the expansion of middle-class housing in the United States in the 1940s and 1950s (Fishman 1989; Freund 2010; Jackson 1987), but with differences that entail important political consequences. The real estate market was effective in channeling these resources to the construction of collective middle-class housing, leading to the solidification of the most common form of middle-class residence in São Paulo in recent decades: housing condos in the city (Caldeira 2001; Dunker 2015; Somekh 1997). The first significant suburbs were not built until the late 1970s, and they have never become

¹¹⁷ This is not the same as saying that no interesting architecture was produced during the period.

numerically significant.¹¹⁸ In other words, the construction boom, sustained by the economic growth of the 1960s and 1970s, solidified the commercial sector of the field of architecture and also consecrated an urban repertoire for the middle classes.

Moreover, the crisis of the dominant sector and the expansion of the commercial sector created a situation that favored the development of a local version of emerging trends in international architecture—especially what is now widely known as postmodern architecture (Harvey 1991; Hell and Steinmetz 2014; Jameson 1992; Jencks 1991; Venturi, Izenour, and Brown 1977). Various traces of these tendencies can be observed in the architecture produced during those two decades in São Paulo, in particular, along Avenida Paulista—a central business and services thoroughfare that, until the 1950s, was still filled with several nineteenth and early-twentieth-century neoclassical and eclectic mansions that quite rapidly were replaced by business towers in the 1970s and 1980s (Bastos 2003; Segawa, Santos, and Zein 1988) (image 28). The dissemination of this new type of architecture, visually dissociated from the previous tendencies of modernism in São Paulo, was received with critique and skepticism in the field. Ruth Zein, who worked in the journal *Projeto* at the time and was one of the architects responsible for a long article on the architecture of Paulista Avenue, argues that that architecture was seen as “non-Brazilian”¹¹⁹—that is, as inauthentic, nonmodern, fashionable but empty. Nevertheless, she mentions that many of the critics were designing these new buildings themselves, showing a discontinuity between the new semio-material practices and the enduring discourses.

¹¹⁸ The most important case of is Alphaville, an upper-class suburb established during the second half of the 1970s in the metropolitan region of São Paulo.

¹¹⁹ Interview with the author.



Image 28. Avenida Paulista, aerial view. Source: David Zingg, 1970s, Instituto Moreira Salles.

Despite the violent persecution of leftist planners and architects, the spatial and material repertoire of modernism continued to be the official language of the Brazilian government during the military regime (1964–1985), but in an impoverished variation. The official language of modernism was particularly visible in the gigantic projects of

infrastructure conducted in the period, but the federal housing programs likewise illustrate it. Also, the federal government required that all midsize to large municipalities elaborate master plans in order to receive certain lines of federal credit. This new market for plans led to the creation of a diversity of offices and firms that employed architects and engineers who worked on the formulation of those plans—many of which were shelved as soon as the funding arrived from the federal government (Villaça 1999).

At this time of political closure and instability in the field, the housing question became more dramatic. The population of the São Paulo metropolitan region grew 55 percent in the 1970s and 26 percent in the 1980s, in an economic condition of continuous loss of the minimum wage's purchase power. Also, the urbanized regions of the city expanded drastically, with the creation of new poor peripheral neighborhoods and a drastic expansion of the number of slums (table 3). This situation became more serious throughout the 1970s, when housing became one of the central concerns for the large majority of the population. The crisis of BNH also worsened the situation: the federal government closed BNH in 1986 owing to the financial crisis and several allegations of corruption.

Table 3. Percentage of houses and population situated in slums in São Paulo (1973–1980)

Year	% Residences	Slum Dwellers
1973	1.2	71,000
1975	1.6	117,237
1978	4.0	321,259
1980 ¹²⁰	7.0	464,934

Source: (Santos 2009:51–52)

¹²⁰ Numbers for 1980 are inaccurate. I present in this table an average between the higher and the lower estimates given by Santos (2009:52).

In the late 1970s and throughout the 1980s, the crisis of the university was also accompanied by a crisis of the profession. The 1980s is commonly treated as the “lost decade” in Brazil, owing to the slow growth of the economy, elevated inflation,¹²¹ and a debt crisis (table 4). In this situation, recent graduates found fewer opportunities in the job market when compared with their peers who had graduated in the previous two decades. That was also the consequence of the opening of new universities and the explosion of the number of architects in the 1980s.

Table 4. Comparison of annual GDP growth rates (1930–2000)

Country	1931–1950	1951–1980	1981–1993	1994-2000
Brazil	4.6	6.8	1.4	3.1
Argentina	2.9	3.4	1.0	2.6
Mexico	4.1	6.4	1.7	3.1
Chile	2.7	3.4	3.5	5.6
Colombia	3.9	5.2	3.2	2.2
Korea	0.6	7.5	7.2	5.3
Japan	1.6	7.9	3.3	1.1
United States	3.2	3.6	2.2	3.9
Latin America	3.6	5.2	1.7	3.1
World	1.8	4.5	2.6	3.4

Source: (Pinheiro et al. 2004:6)

That was a moment when the shock between expectation and reality also lived side by side with a cultural repertoire in the field that still consecrated the image of the architect as a creative mind working in a small office—a type of spatial poet—in clear contrast to the predominance of jobs in large construction and development companies. As a story in the weekly *Veja* pointed out, “In the last five years, large developers multiplied as fast as small private offices closed.” In that same story, Siegbert Zanettini, a professor at FAU-USP,

¹²¹ The yearly rate was 235 percent in the last year of the regime (1985).

described a survey conducted among architects that showed a pervasive reluctance on their part to describe themselves as wage workers and a preference for self-identifying as professionals—even if they were indeed wage workers: “As they recognize that small offices are not viable and that large companies are unsatisfactory, architects submerge in a well of perplexity from which they can still see no light” (Veja 1973:88) That same survey showed that architects in the state of São Paulo in 1973 were twenty-seven years old on average (younger than physicians and engineers), and women were between 25 and 30 percent of the graduates and 50 percent of the students. This deep cultural and professional divide was also the consequence of a tension between the language of the field and the reality of the profession: the old tension between the architect as the creative designer and as a “drawing board professional” that had organized the sectors of the field in the 1950s and 1960s still lived on, at least discursively, throughout the 1970s and 1980s.

The crisis in the field and the profession in the 1970s and 1980s happened concurrently with its numerical expansion. An assessment on university training in architecture in Brazil, published in 1974 (MEC 1974), reports the existence of thirty schools of architecture in the country, twenty-two of which had been created since 1961. Seven of these institutions were situated in the state of São Paulo, five of which were in the metropolitan region. Beside FAU-Mackenzie and FAU-USP, both created in the 1940s, three institutions were formed in the 1960s and early 1970s: Faculdade de Arquitetura e Urbanismo da Universidade de Mogi das Cruzes, Faculdade de Arquitetura e Urbanismo Braz Cubas (Mogi das Cruzes), and Faculdade de Arquitetura e Urbanismo de Guarulhos. This expansion would continue throughout the 1970s and 1980s.

These schools helped to diversify the social composition of the profession as well as the social background of new members of the field when compared with the previous two generations of architects. At the same time, some of the most traditional departments, such as FAU-USP, followed the trend that was taking place in most Brazilian prestigious universities and began to require graduate degrees from its faculty, leading to the professionalization of research in architecture and urban planning as well as a wider separation between teaching and the profession.

Regarding the debates and the dissemination of knowledge in the field, as mentioned earlier, some of the main venues through which visual language and the discourses of the dominant sector circulated in the 1950s and 1950s were discontinued, leading to a real crisis of critique and discursive elaboration. This situation would be reversed only in the late 1970s and during the 1980s, when magazines and journals were created and provided new spaces for a renewed discursive elaboration in the field as well as for the dissemination of national and international trends. The magazine *Projeto* was created in 1977 and *Arquitetura & Urbanismo* in 1985—both of which invested in fostering local, as well as national, conversations among architects, without the same pretention of establishing the parameters of the dominant local production, as the old *Acrópole* had attempted to do.¹²² In 1981, the journal *Espaço & Debates* was created by a group of leftist urbanists, planners, and urban-oriented social scientists, and it played an essential role in inserting international critical debates concerning cities into local debates—particularly debates within French Marxist urbanism, advanced by authors such as Christian Topalov, Jean Lojkin, and Alan Lipietz, who had several of their articles translated into Portuguese and published in different issues of *Espaço & Debate*.¹²³

¹²² Interviews with Ruth Zein and Hugo Segawa.

¹²³ Interview with Pedro Jacobi.

During those years, a third sector of the field solidified: the subfield of “urbanism”—a combination of urban studies, theory, and planning. The field of architecture in São Paulo always had a subfield of urbanism, dominated in its first years by modernist planners of a Robert Moses style—Prestes Maia, the mayor from 1938 to 1945 and from 1961 to 1965 and the proponent of a restructuring plan for the city based on the construction of radial avenues around the city center (Maia 1945), is certainly the most important name, together with FAU-USP professor Luís Ignácio de Anhaia Mello, who deeply influenced Artigas’s generation. This first generation, which had crucial importance in the planning and construction of the basic infrastructure of São Paulo and in the initial establishment of a planning culture centered on the individual automobile, was trained most commonly in schools of engineering and was very influential in discussions about urban planning in the United States in the 1940s and 1950s (Ficher 2005)—particularly the “car centrism” that was a component of Moses’ style of urbanism. Moreover, in the 1960s, a group of Christian Democrats—one of the most vocal forces of the left in the period, together with the Communists—influenced by the doctrines of the French “Economy and Humanism” school of planning that Father Louis-Joseph Lebreton formulated and publicized in Brazil, started to make key contributions to planning discourses and practices in São Paulo (Roldan 2012).¹²⁴

In addition, the interference of the military regime in the university also had the side effect of strengthening the subfield of urban planning at FAU-USP: with the compulsory retirement of Artigas, Mendes da Rocha, and Maitrejean, all of whom were associated with the teaching of design, the discipline of urban planning gained relative importance and incorporated new and influential faculty, such as Candido Malta and Joaquim Guedes

¹²⁴ Candido Malta, Francisco Whitaker, Flavio Villaça, and Luiz Carlos Costa are some of the architects who became socialized in those planning discourses, some of whom would later work in the city administration in different periods (interviews with Flávio Villaça and Cândido Malta).

(Editoria Caramelo 1992:15–16). Furthermore, the crisis of semio-material practices centered on design—a consequence of the dissemination of *Arquitetura Nova*'s critique, the radicalization of students, and the expulsion of those professors—led to the increased perception that the city, not the edifice, was the scale for a politically oriented professional intervention (Maricato 1987, 2009).

In this milieu, a new culture of urban theory emerged among progressive planners and intellectuals in São Paulo from the mid-1970s to the early 1990s. Starting in the 1970s, an important body of (mostly Marxist) urban scholarship, particularly in the Universidade de São Paulo, attempted to “provincialize” the critical academic production on urban issues (Arantes 2009). This literature pointed out the specificities of the urban process in the global periphery and the specific housing issues in an underdeveloped country; at the same time, it pointed toward a politics of theory making that was highly sensitive to the historical circumstances of Brazilian cities—São Paulo, in particular.

This generation of planners was influenced by the critique of modern design advanced by *Arquitetura Nova*, but they also actively translated foreign—especially French Marxist (Castells 1979; Topalov 1974)—critical theories about the city to the reality of country in the global periphery and of a metropolis such as São Paulo. Most of this intellectual production in the 1970s and 1980s had a critical tone; overall, it did not try to advance innovative paradigms of urban planning. São Paulo's Marxist “urbanism” would become directly oriented to action only during the 1980s and early 1990s (Bonduki 1986; Brant and Singer 1980; Maricato 1999), with the emergence of new urban movements, the creation of *Movimento Nacional pela Reforma Urbana* (National Movement for Urban Reform—MNRU), and the constitution of a critical planning culture (Sanyal 2005). Some of these critical urbanists would become

central players in São Paulo's planning from 1989 to 1992, when Luiza Erundina was the city mayor—the first member of the Workers' Party to be elected mayor of São Paulo—and a significant number of these intellectuals would be appointed to key positions in the administration (Singer 1996).

Research on São Paulo's peripheries

Already in the mid-1960s, when the call for bolder action in the realm of social housing provision was in vogue and had not been hit by the shortsighted needs that structured BNH, there was a growing perception among architects that the debates about public housing, although they were informed by discussions of international modernism and by the dominant political repertoire on the Brazilian left, lacked something essential: a more realistic understanding of the people who lived on the outskirts of the metropolis, their methods of production of their spatiality, their knowledge of construction methods and materials, as well as their practices of inhabiting the house and the city. Self-built residences accounted for approximately 63 percent of all the housing stock in São Paulo until the 1980s and were almost completely excluded from the discourses and practices of the field of architecture (Kowarick 2000:29).

Two pioneering research projects, conducted by architect Carlos Lemos and by sociologist Ruth Maria Sampaio, helped to propel this discussion in a fundamental way. To a large extent, the investigation that resulted in the reports "Research on Social Housing," from 1964 to 1965, and its expanded version, "Popular Self-built Housing in São Paulo," from 1970 to 1972 ("Pesquisas Sobre Habitação Popular" and "Habitação Popular Paulista Auto-construída," respectively) provided a detailed sociological and architectural look at the built

environment of the city's peripheries. As the scholars explain in a preface written in a later printing of the reports, "In the early years of the 60s, a time when competitions for 'modern' projects for the old problem of the popular house proliferated, we considered that it was appropriate to conduct an inquiry into the programs of self-built houses on the outskirts of São Paulo. We thought, rightly, that the 'erudite' projects coming out of civilized drawing boards of architects actually did not welcome the proletarian expectations as to what the ideal home was." (Sampaio and Lemos 1993:5).

Concerning the published reports, Lemos and Sampaio pointed out:

When we planned this pilot project, we wanted to study the popular house in São Paulo that had been designed and built without direct or indirect interference of contractors or engineers, who could obviously influence the characteristics of the original plans. Instead, we wanted to study the house where the desires, tastes, and architectural ideals and needs of its residents were reflected in all clarity. (Sampaio and Lemos 1993:13)

This first version of the study consisted of the survey and analysis of 122 homes in 1964 and 210 homes in 1965, the vast majority built by their owners in regions of the São Paulo peripheries under rapid expansion. Their observations about housing conditions provide a detailed panorama of the peripheries of São Paulo in the period—not only of its constructive aspects but also its demographic and even, in some passages, biographical aspects. The authors describe, for example, the common practice of building more than one house on the same lot, in order to provide extra income to the owners through the rental of the additional residence, which in many cases shared bathrooms, latrines, and wash tanks with the house of the owner family (Sampaio and Lemos 1993:14). Also, they noticed the primacy of the kitchen and other shared living spaces in self-constructed housing, both in constructive terms (in that it usually occupied a considerable area of the lot) and in the sociability of those families. The kitchen in the self-built popular house was the most important room of a house,

and it was used for different purposes: resting, chatting, and, of course, cooking and eating. That repertoire of habitation contrasted with the value that “bourgeois” families ascribed to comfort and privacy at bedtime and individual leisure (Sampaio and Lemos 1993:73). That, in terms of design, usually led architects to attribute primacy to the dormitories when designing and building for the middle and upper classes. That was one of the most frequent features of the houses studied by Sampaio and Lemos: the superposition of different functions in each of the areas of the house, in contrast to the stricter separation of functions in the traditional bourgeois house.

Moreover, they noted that the construction of the house was entangled with the history of those families. Given the budgetary constraints and the preponderance of self-construction that could occur only on weekends and holidays, the houses were built over the years: “The initial budget allows, for example, for building two rooms, as well as the pit latrine and the well for clean water. The ‘beautification’ of the house will be provided at the right time, when the owner finishes the basics and gets in a more conformable financial situation” (Sampaio and Lemos 1993:15). In the updated study published in 1975, the authors note that peripheral houses, despite the dominant role of the owners themselves in construction, often still relied on other forms of agency. Ninety percent were built with outside help of some kind: 45 percent with the help of contracted labor, 43.8 percent with their own family aid, and 11 percent in collective construction with members external to the family (in “mutirões,” or self-build cooperatives¹²⁵).

¹²⁵ The word *mutirão* does not have a perfect equivalent in English. It denotes the *process* through which a collectivity deals with a certain task cooperatively—in this case, housing construction; at the same time, it also denotes the *collectivity* that performs that task. In this dissertation, I will translate *mutirão* as “self-build cooperative,” following Forty (2012:40). This translation reasonably captures both the reference to a collectivity and its specific work regime and organizational form.

The ethnographic observations are complemented by a rich panorama of plans (image 29) and a quantitative analysis of the composition and use of spaces of these residences and forms of occupation of their lots. Contrary to a certain populist imagination—which, in studies of the house, find common manifestations in studies of vernacular and also postmodern architecture—Sampaio and Lemos’s work does not romanticize the popular home but recognizes that it is the fruit, above all, of the scarcity of resources and the mobilization of limited technical expertise available in those communities, in addition to the state’s negligence in participating in the process, either in housing construction or in the planning of the urban space. The authors observe that this state of neglect led low-income families to rely on the predatory offers of irregular real estate agents and speculators and on their own efforts to produce their homes.

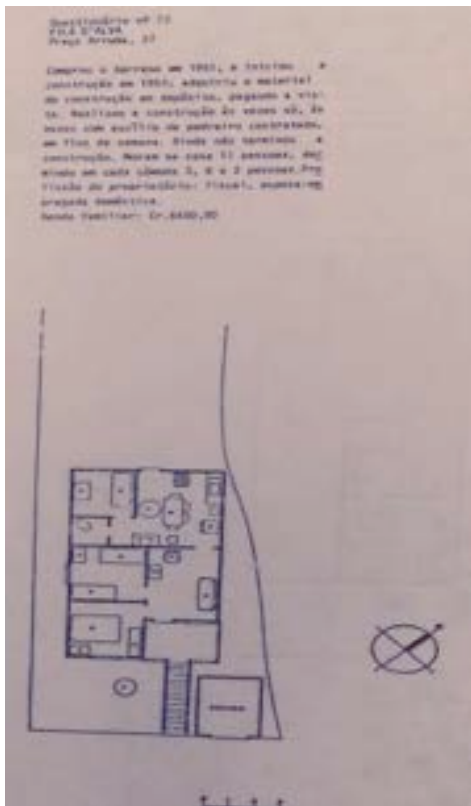


Image 29. Example of a plan and description of the “social life” of a house in Sampaio and Lemos (1993:84).¹²⁶

¹²⁶ The description reads: “[The owner] bought the lot in 1951 and started the construction in 1953; [he] acquired the construction material with a deposit, paying in cash on the spot. [He] built with the occasional help of a hired

Thus, the precariousness of that built space at the peripheries, a result of the tension between material, political, and technical limitations, on the one hand, and the imagination and surplus labor of those low-income families, on the other (Ferro 2010; Oliveira 1981, 1982), gained detailed outlines in that study—a very revelatory panorama for the field of architecture and planning in the city at the time. It displayed a poor distribution of the rooms, which obeyed not the principle of the best possible use of spaces but the need to build the house module by module, and a simplicity and monotony of materials, generally acquired as the result of price conveniences at the moment of their purchase and manipulated with “a single poor construction technique based exclusively on masonry brick” (p. 72). There was an “exasperating monotony of constructive solutions, and, despite the diversity of origins of the people interviewed, these solutions, from a technical point of view, are always the same” (pp. 63–64.); in short, this was a “mediocre and poor constructive panorama from the technical-constructive and, obviously, artistic points of view, but rich with respect to the interests of Sociology and Anthropology” (p. 64).

The researchers captured another aspect directly related to the issue of social housing: the rejection of collective housing solutions. Lemos and Sampaio conclude:

The aversion to collective housing is widespread and constitutes first and foremost a cultural issue.... We noticed that the concept of the condominium is not well understood, particularly with regard to areas of common ownership. Who is not standing on their own ground does not own anything and, moreover, there is much promiscuity among strangers and different families. The apartment cannot ‘grow,’ cannot be modified and incorporate additional rooms. It is dangerous to children, and, additionally, it makes it impossible to grow a vegetable garden or raise chickens, not to mention dogs and cats.” (Sampaio and Lemos 1993:75)

construction worker on weekends. [He] has not finished the construction yet. Eleven people live in this house; 3, 6, and 2 people sleep in each of the rooms. Owner’s profession: inspector. Wife’s profession: maid. Family income: Cr. \$450.00.”

Laura, a forty-four-year-old woman who lived in a poor peripheral neighborhood, expressed well this aversion to apartment buildings that BNH commonly built on the city's outskirts: "They are very dangerous to children, and there is no place for recreation. I prefer my house with a little courtyard, chickens, and banana and avocado trees" (Vasconcelos 1972).

These observations were crucial at a time when BNH repeated impoverished variations of the modern residential tower throughout the country—a form of living that was rejected by the majority of residents of the peripheries (Lemos 1976, 1989). Also, Lemos and Sampaio observed that the dominant political culture among that population ascribed great value to land ownership—something that would later be a constant question in the discussions between architects and planners and populations from peripheral neighborhoods. In summary, they observed in the 1960s that even some of the most progressive programs for low-income housing would be hindered by the overwhelming economic and cultural importance of land ownership across all segments of the Brazilian population.¹²⁷

Lemos and Sampaio's reports, despite having had a very limited circulation—essentially limited to architects and social scientists attentive to the issue of São Paulo's peripheries—were a key element in the emergence of a new form of relationship between architects, urban planners, social scientists, and the peripheral population in São Paulo—and of a new articulation of the "popular" that slowly became part of the repertoire that spread within the most progressive sectors of the local architectural field. This was due less to the final report's suggestions¹²⁸ and primarily to the political and methodological practice of establishing deeper contacts with these populations and territories.

¹²⁷ This question was mentioned in many interviews, particularly Reginaldo Ronconi's and Joan Villà's.

¹²⁸ These suggestions argue, among other things, for the construction of affordable homes that unify the shared living spaces (kitchen and living room, mainly) and for a public investment in residences for rent.

This contact was not always simple and very frequently involved many misunderstandings and a clash of cultures. An article published in 1972 on the visits of students to peripheral neighborhoods describes some of the mix-ups (Vasconcelos 1972). The story describes a misunderstanding between some of these “bearded students, wearing ‘blue jeans’” and the police at Vila Sonia, a low-income neighborhood in the western part of São Paulo: with that appearance, those students could be nothing but Communist agitators in the eyes of the police. But very often the students also had to negotiate their presence there with the residents, who commonly thought they were city hall inspectors—an unwelcome presence in a region where most residents did not have official land titles and very often informally tapped the electrical grid. Those students were usually more successful in establishing rapport with many of the religious families that inhabited those neighborhoods when visiting in couples.

This kind of research in architectural practice, with its seeds of an emergent political repertoire, would unfold in at least three dimensions over the following years: the development of a critical thinking about popular home production; the multiplication of field studies about life, sociability, and politics on the peripheries that informed the practices of a younger generation of architects and urban planners on the left, and the first trials with construction techniques and a politics of construction in “housing labs” in different schools of architecture. I present each of these processes in the following discussion. Nevertheless, these three dimensions became socially relevant only after the rise of housing movements and movements for urban reform during the 1970s and 1980s, as I show in the last section of this chapter.

The rise of a local Marxist theory of the urban

Lemos and Sampaio's work affected views of the "popular" in the architectural field in this period. A first important example of this impact is the text "A Produção da Casa no Brasil" ("House Production in Brazil"), written in 1969 but published only in 1972, one of the most influential of Sérgio Ferro's interventions in discussions of the architectural left in the period. As the author pointed out, inherited technique and the necessity of choosing low-cost materials constituted a situation of urgency that hindered innovation in the processes of self-construction. Ferro describes the processes, forms, and materials commonly used in the self-construction of houses at the peripheries as a sort of assemblage of prehistoric techniques, which generated a "mandatory deposit of endless needs" (Ferro 2006a:63).

In addition to reviewing the semio-material repertoires commonly employed in the production of popular houses, Sérgio Ferro pointed to a central theme in discussions about the production of the spaces of the lower classes that would unfold in the following decades: self-construction, whether family based or organized in "self-build cooperatives," led to a lowering of the cost of the reproduction of the labor force, allowing for an increase in the rate of profit of Brazilian capitalists via the lowering of real wages of workers.

Other architects would develop Ferro's insights, combining them with other referents from Marxist urban theory and new knowledge about the life and constructive practices at the peripheries into a reflection about the production of the city. Ermínia Maricato, for example, joined Ferro in his critique of traditional methods of self-construction at the peripheries, describing them as a brutal effort to produce a private house and not as a pure act of popular creativity (Borges and Maricato 1981). This would become a central theme to Marxists in the emergent subfield of urbanism in the 1970s, largely synthesized in the work *A Produção*

Capitalista da Casa (e da Cidade) no Brasil Industrial (“The Capitalist Production of the House (and the City) in Industrial Brazil”) (Maricato 1979; Arantes 2009).

Perhaps even more important, the long essay “A Economia Brasileira: Crítica à Razão Dualista” (“Brazilian Economy: Criticism of the Dualistic Reason”—(Oliveira 1981), by the sociologist Francisco de Oliveira, transformed Lemos and Sampaio’s research and Sérgio Ferro’s observation about the lowering of the costs of reproduction of the labor force into the germ of an all-encompassing interpretation of Brazilian society—and, later, a foundation for the critique of housing self-production, even in the case of self-managed cooperatives (Ferro 2006b). The work was hugely influential to the generation of young architects that began to incorporate the gesture of going to the periphery that had, to some extent, been initiated by the work of Lemos and Sampaio and who would become key players in the following decades in the political and constructive articulation between architects and peripheral urban social movements. More broadly, Oliveira’s article provided a reference point for a series of investigative sociological works that turned their eyes to the peripheries, especially *São Paulo 1975: Crescimento e Pobreza* (São Paulo, 1975: growth and poverty), edited by Lucio Kowarick and Vinicius Caldeira Brant.

The dissemination of activist research in architecture and planning

The engagement with the periphery expanded when a new generation of FAU-USP professors, especially Ermínia Maricato and Rodrigo Lefèvre, began to take students on field trips to these neighborhoods in the mid-1970s as part of required undergraduate courses.¹²⁹ Through these visits, some students developed projects with strong activist purposes to

¹²⁹ Interview with João Marcos Lopes.

research the social life at the peripheries of the city and the self-production of housing. One of these projects, conducted by Nabil Bonduki and Raquel Rolnik under the supervision of Lucio Kowarick, would give rise to the book *Periferias: Ocupação do Espaço e Reprodução da Força de Trabalho* (“Peripheries: Space Occupation and Reproduction of the Labor Force”) (Bonduki and Rolnik 1979). Increasing contact with the reality of the peripheries and the lived experiences of the urban poor was also taking place in other contexts in Brazil (Valladares 2005) and in Latin America (Gorelik 2005; McGuirk 2014) and was associated with the dissemination of progressive pedagogy and action research (Fals-Borda 1991; Freire 2014).

Despite having been written largely in the wake of Francisco de Oliveira’s work, Bonduki and Rolnik’s study is ambiguous regarding the progressive potential of the self-production of a popular house—a perspective that would become one of the central tenets of the emergent political repertoire and its associated semio-material practices in the 1980s. In fact, in several passages at odds with the core of Oliveira’s theory, the authors emphasized:

When producing their own home, workers create a use value, entirely appropriated by them, which is potentially a commodity, because it can be sold at any time.... If, in the first instance, housing that results from this operation is produced as a use value, it acquires an exchange value when it is commercialized through sale or lease, which are very common activities. If auto-construction has its origins in low wages, when it becomes widespread, it institutionalizes such low wages. There is, therefore, an implicit surplus of labor in this process, but this is not placed in the construction of the house itself but in decreasing the magnitude of the work required in everyday work, made possible by the elimination of the monthly expenditure that is equivalent to the costs of rent. (Bonduki and Rolnik 1979:129)

This quote, although it seems more an intervention in a Marxist debate on economic development, points to a conceptual shift in the field of architecture and urbanism in São Paulo toward the elaboration of a political repertoire and the development of semio-material practices that valorize the engagement with peripheral populations that would be elaborated

over the next decade. In this repertoire, self-managed self-build cooperatives took center stage and became seen as positive spaces in city production and important arenas for the constitution of new political subjectivities. The movement of mutual aid housing cooperatives in Uruguay also influenced the elaboration of these practices and this repertoire (Baravelli 2006).¹³⁰

Nevertheless, once more this debate also shows that the then-emergent practice of self-build cooperatives also had to negotiate with the dominant culture among the urban poor that tended to see house ownership as a ticket to self-value and to the attainment of citizenship—an individual project of existence that takes the form of a “private citizenship” (Kowarick 2000:94). Thus, the house symbolized a series of different values and aspirations: property, safety, and dignity.¹³¹ The debate about the extent to which single-family land ownership should be an object of struggle was also part of the discussions of the Landless Workers Movement in Brazil (Movimento dos Trabalhadores Rurais Sem Terra—MST) (Martins 2002), and echoes historic discussions on the left since the time of the discussions about the political character of the Russian peasantry—and the peasantry in other contexts as well (Aricó 2010; Shanin 1983). In the case of São Paulo’s peripheries at the time, this political repertoire was reinforced by the religious rhetoric that portrayed the land as a space of community building and self-fulfillment (Löwy 1996). In Joan Villà’s words, “The main question for housing movements was the size of the lot.... Land was a very important thing [for them]. And the church also mythicized the land. Many places had biblical names, such as

¹³⁰ This movement was first presented to the progressive sector of the architectural field in São Paulo in the Latin American Seminar on Rationalization of Construction and Its Application to Social Housing, held at the Institute for Technological Research (IPT) in São Paulo in 1981.

¹³¹ For a discussion about the history of different formations of citizenship, see Somers (2008); for the Brazilian case, see Baiocchi (2005), Carvalho (2011), Holston (2009), and Kowarick (1997).

Canaan.... I got to know several Canaans throughout São Paulo.... The conquest of the land was an epopée.”¹³²

Thus, this new generation of progressive architects absorbed Oliveira’s criticism that autoconstruction was part of the constructive dimension of capitalist exploitation in peripheral capitalism, but they began to notice that it also had the potential to constitute an arena of *political pedagogy*. That is, self-managed building cooperatives, while organically linked to economic and social processes of workforce exploitation and still entangled with the culture of land ownership, could also work as spaces of community building, critical reflection, and resistance. In other words, they could be constituted as “territories of utopia” (Bonduki 1986). These experiences would directly impact the emergence of housing laboratories and architecture cooperatives throughout the 1980s in São Paulo and the dissemination of self-build cooperatives in peripheral neighborhoods. In other words, they were at the origins of the emergence of a new program for low-income housing, which I reconstruct in the next chapter. Nevertheless, this program took form only after the emergence of new social movements and the renewal of the political repertoire of the left, from the late 1970s to the early 1990s.

Conclusion

In this chapter I reconstructed some of the early steps in the fragmentation of the brutalist program for low-income housing and the constitution of the epistemic and political community (Epstein 1996; Glaeser 2011; Knorr Cetina 1999) that brought together architects and residents of peripheral neighborhoods in São Paulo—a community that would elaborate a new program for low-income housing in the following years. That emergent epistemic

¹³² Interview with the author.

community was also part of a different assemblage of practices and materials that involved distinctive methods of participatory planning and design, collective self-managed construction, as well as materials and techniques that would suit these new methods of construction.

A new political and constructive program would be established in a more mature form only during the 1980s and early 1990s, mainly owing to the convergence and complementarity of action of this generation of progressive young architects and urban movements—as I show in the next chapter. A third factor was the growing acceptance of this program by the democratizing state (in Franco Montoro’s term as governor, 1983–1987) and local administrations in the process of the Brazilian political opening—especially Luiza Erundina’s municipal administration (1989–1992). A few key architects and planners who had worked in self-managed building cooperatives became important figures in the administration, in particular, Ermínia Maricato (secretary of housing) and Nabil Bonduki.

The sum of these processes amounts to the first outline of a new program for low-income housing that would shift political emphasis from design to construction, questioning the ideology of design, renouncing the language of the development of a future working-class consciousness and emphasizing the lived practices of organization, construction, and habitation of lower-class individuals and families, and transferring the historical temporality to the present challenges and struggles.

In sum, the 1970s and 1980s marked the passage from a political repertoire that framed the issue of housing from a political and constructive standpoint focused on the housing deficit to one that, while not ignoring this problem, brought into play the political dimension of the process of production of the urban and of the economic and legal structures that order

the making of cities. It also shifted away from a political repertoire that focused on the development of productive forces to a repertoire that focused on the transformation of relations of production (and in production)—as I show in more detail in the next chapter.¹³³

¹³³ In fact, that was not exactly the passage between two programs, but the emergence of a new one that would compete with the modernist program within the left; these two programs remain in dispute within the left, and even in the discourses and practices of housing social movements to our days.

CHAPTER 7

Political pedagogies of construction: When architects meet social movements

Introduction

From the mid-1960s until the 1980s, critical intellectuals in Latin American discovered “the subaltern.” In fact, they discovered several different forms of subaltern knowledge, subjugated practices, and popular repertoires of organization that shook traditional understandings about the historical formation of the lower classes, their characteristic forms of agency, and their potential role in social struggles. This discovery is, in fact, an “invention,” or a political and semiotic articulation: the *subaltern*, the *poor*, or any other term that one might use to connote the largest segments of the population in Latin American contexts are not a given entity. Like any form of collectivity—such as “the nation” (Anderson 1991; Brubaker 2004)—they are a collective invention of which the empirically existing poor individuals, families, and social movements are also active creators. During this period, several radical experiments in critical pedagogy (Freire 2014), action research (Fals-Borda 1991), theater (Boal 2000), and other cultural realms attempted to promote a dialogue with the experiences and knowledge of subaltern social groups and, to a certain extent, to break the barriers that separated popular cultural manifestations and elitist institutions, such as theater, cinema, and the university. Although the main intellectual strands of thought that oriented

these experiments with a new political epistemology were developed in the 1960s, authoritarian regimes in the region retarded their full development in different national contexts for at least a decade (Aparicio and Blaser 2008).

An analogous process happened to architecture in São Paulo from the late 1970s until the early 1990s. In the previous chapter I reconstructed some of the main initial elements of this new articulation of the urban poor and the revalorization of some of their subjugated practices of building and inhabiting the city. An emergent program for low-income housing among progressive architects in association with social movements and neighborhood associations challenged the previous forms of engagement between urban professionals and low-income city residents, who had historically been responsible for the production of the built spaces that they inhabited in the city.

In the last chapter I also analyzed a moment of crises in the field of architecture and in the political repertoire of national developmentalism, as well as some of the emerging practices among architects and planners that would introduce elements of a new program for low-income housing in São Paulo. Here, I follow architects and activists as they assembled a new program for low-income housing. I address two central questions: What materials and construction techniques were more conducive to the materialization of these emergent political ideas and practices? How did these new materials and techniques affect those repertoires? Although these two questions are reframed here in my theoretical vocabulary, they were essentially empirical questions that a group of progressive architects and housing activists were pursuing in that context of growing political unrest and increasing organization of low-income populations at São Paulo's peripheries. More precisely, from the late 1970s until the early 1990s, the issue of the right to housing in São Paulo's peripheral neighborhoods

was pursued side by side with a questioning of the political character of construction techniques and an attempt to reframe the construction site as a space of cooperation and political education.

A participatory program for the built environment—in this case, for low-income housing—was an attempt to pragmatically adjust these two dimensions: a political repertoire and a set of semio-material practices. Housing movement activists and architects managed materials and endeavored to instate certain dynamics at construction sites that reinforced critical values of the housing movement and of progressive architects. Among these new political and semio-material practices, principles of self-management, participatory design, community making, and an economy of dignity that resignified the types of spaces associated with the urban poor occupied a central place. New semio-material practices were to facilitate practices of participatory design, self-management, and collective construction.

Methodologically, I do not intend to provide a detailed history of any specific housing project, although most of my examples will come from two empirical cases: Copromo¹³⁴ and União da Juta.¹³⁵ Both complexes were built in a regime that combined self-build cooperative construction, self-management, and collaborative design under the responsibility of Usina, one of the technical offices in São Paulo that specialized in this type of project. This chapter, then, is a historical reconstruction of the program: an assemblage of political practices and

¹³⁴ A housing complex with one thousand units divided into fifty five-story buildings. The lot was initially occupied in 1987, and negotiation with public authorities lasted until 1991. Construction took place between 1992 and 1998, when the units were occupied. Construction was financed partly by CDHU, the state housing agency (680 units), and partly by the residents themselves (320 units).

¹³⁵ A housing complex of 160 units, part of a larger complex where other associations also coordinated the initial occupation of the property as well as the planning and construction of the housing units. Fazenda da Juta, initially a private terrain, was occupied in the 1980s, and several organizations were formed to negotiate the purchase of the terrain. Associação de Construção União da Juta (Construction Association União da Juta) was part of the larger Housing Movement Association “Leste 1,” which coordinated most of the struggle for housing in part of the eastern region of São Paulo. Negotiation with the state administration took place in 1992, and construction lasted from 1993 to 1998.

discourses, semio-material practices, and built environments. In this sense, it differs from chapter 5: whereas in that chapter I developed a historical ethnography of a housing complex in the moments of design, construction, and habitation, in this chapter I advance a historical ethnography of an assemblage of practices, individuals, and materials across different housing projects, but in the same historical context.¹³⁶

There is a second methodological contrast between this chapter and chapter 5: whereas in the latter the voices and experiences of construction workers were almost absent, owing to the erasure of their presence in the historical record, in this chapter I include the testimonies of several worker-residents. This is not exclusively a consequence of the different availabilities of first-person narratives between the two cases—that is, it is not simply a problem of data collection. The presence of these testimonies and pictures in this chapter also signals a contrast of historical agency between the traditional construction work that characterized the previous program and a higher prevalence of the agency of the builder-residents in this new program.

In the following sections, I initially reconstruct the main elements of the political discourses and practices that emerged within the Brazilian left during the late 1970s through the early 1990s and the core values and repertoire of the housing movement in São Paulo in that period. Then I show how architects attempted to develop new materials and techniques of design and construction that would allow for the material articulation of the main elements of

¹³⁶ For this purpose, I am loosely inspired by Foucaultian and Deleuzian studies that reconstruct multisite “dispositifs” and assemblages (Marcus and Saka 2006; Rabinow 2003). In Rabinow’s useful conceptualization, “Assemblages are secondary matrices from within which apparatuses emerge and become stabilized or transformed. Assemblages stand in a dependent but contingent relationship to the grander problematizations.... They are a distinctive type of experimental matrix of heterogeneous elements, techniques, and concepts.... They are comparatively effervescent, disappearing in years, decades, rather than centuries. Consequently, the temporality of assemblages is qualitatively different from that of either problematizations or apparatuses” (Rabinow 2003:56).

that political repertoire. Finally, I analyze some of the negotiations and tensions between the aspirations of the housing activists and architects.

An emergent political repertoire: From the national to social developmentalism

The years between 1978 and 1988 were a period of intense political and intellectual creativity. This creativity is expressed above all in the emergence of social movements at the peripheries of the largest cities as well as in rural areas, the strengthening of labor unions in the late 1970s and 1980s, the articulation of a progressive politics within the Catholic Church under the growing influence of liberation theology, the flourishing of counter-hegemonic artistic and student movements (Dunn 2001; Napolitano 2006; Xavier 2013), and the dissemination of new research agendas among progressive intellectuals.¹³⁷ In Eder Sader's words, "new actors enter the stage," leading to the emergence of a political repertoire of participation and autonomy (Gohn 2010:273) and a new articulation of "the people" within the left.

Many of these movements were sectorial responses to the worsening economic and social conditions—to a large extent consequences of economic and social policies the military government had imposed. It was clear that while the economy was growing at an unprecedented rate and several sectors of the national industry were experiencing rapid development (particularly the auto and heavy industries), life conditions of the population worsened continuously during the regime. As shown in the last chapter, in the case of São

¹³⁷ This was not true only in urban studies. In sociology, for example, social movements were the main topic of research throughout the 1980s, in association with a debate on the construction of a national agenda of citizenship (Bortoluci et al. 2015; Kowarick 2009). In São Paulo, two important research centers—CEBRAP and CEDEC—were particularly productive in advancing this research agenda, since the university was still in the process of democratization.

Paulo, there was steady growth in the number of individuals living in slums, as a consequence of the depressing of average salaries and rising inflation. Life at the peripheries worsened continuously, and economic growth did not lead to provision of better public services, such as hospitals, public transportation, and day-care centers.

New movements at the peripheries mobilized to tackle those issues. This outburst of activism and the cycle of protests (Tarrow 1989) of the late 1970s and 1980s find a parallel only in the intensification of political mobilization that took place in Brazil in the early 1960s, a process that the dictatorship aborted in 1964. Of particular importance in São Paulo were the emergence of a movement against scarcity (“movimento contra a carestia”), movements of unemployed workers, clubs of mothers that demanded the construction of day-care centers, and movements for improvement of public transportation. Other movements demanded the creation of a public health system or promoted mobilizations around issues of race, gender, or sexual oppression. And, of course, several neighborhoods created associations to push for the legalization of their land titles (Caldeira 1984; Holston 2009:chapter 6; Rolnik et al. 1991), for the improvement of urban infrastructure, and—even more important for my purposes here—for the construction of new housing units (Gohn 1991; Taschner 1982).

If the economic and urban crises provided the macrostructural context for this advance of political organization, the political crisis of the military regime offered an important dimension of its structure of political opportunities. Additionally, progressive sectors of the Catholic Church that were organized in basic ecclesial communities under the religious and political doctrines professed by liberation theology, which spread throughout the peripheries

of the largest cities as well as in rural areas, provided its primary, although not unique, organizational basis as well as one of the main discursive matrixes (Sader 2010).¹³⁸

The fall of the regime had several causes, both internal (such as divisions within the armed forces and the growing legislative activism of the official opposition) and external.¹³⁹ A large wave of strikes that began in 1978 in the industrial belt of São Paulo generated an impulse for reorganization of the left and the center, as it showed that the government was not able to completely repress manifestations of public discontent. In 1978 alone, unions in the ABC region organized 328 strikes (Secco 2012:39).¹⁴⁰

Finally, the organization of the new political parties after 1979—when the creation of political parties other than the two previous official ones became legal again—, led to the implementation of alternative channels connecting social movements and the political system. Of particular importance in this process was the creation of Partido dos Trabalhadores (Workers' Party—PT) in 1980. The new party was deeply embedded in the unions that organized the main strikes in the final years of the 1970s—Luis Inácio da Silva, known as “Lula,” the chief leader of the strikes and a national voice of the opposition to the regime, was the main character behind the creation of the party.¹⁴¹ But PT was also composed of members of the new social movements, Catholic activists, leftist intellectuals, Trotskyists, and former members of leftist armed groups (Secco 2012). It was the first party formed from below in Brazilian history, deeply marked by the culture of workers' organizations and the repertoire of participation of the new urban social movements (Baiocchi 2006; Baiocchi et al. 2011; Gohn

¹³⁸ There were around forty thousand of these communities in Brazil in 1978 (Secco 2012:45).

¹³⁹ There is a large literature on the topic, and it is not my purpose in this chapter to present it in detail. For a review of this literature, see Cardoso (2011), Gohn (2010:chapter 8), and Kowarick (1987).

¹⁴⁰ The region known as ABC encompasses the municipalities of Santo André, São Bernardo do Campo, São Caetano do Sul, Diadema, Mauá, Ribeirão Pires, and Rio Grande da Serra. This region concentrated most of the industrial production of the country in the late 1970s, with a large share of the national car industry, which had a yearly growth rate of 30 percent during the 1970s (Secco 2012:37).

¹⁴¹ Lula would be elected president in 2002 and reelected in 2006.

2010). During its first decades, PT established a decentralized structure of thematic and regional bases that helped the party to define its political agenda (Secco 2012). These bases in many cases followed the logic of the organization of social movements—for example, the housing nucleus (“núcleo de moradia”) played an important role in the internal politics of the party during the 1980s.

I do not intend to describe all the relevant social movements that agitated São Paulo’s peripheries during the period or to present the important events that led to the reconstruction of the field of social movement activity in this metropolitan region. Nevertheless, it is important to emphasize that these new movements created another radical fracture in the backbone of the previous dominant repertoire on the left. First, they were able to breach the traditional divide between the factory and the neighborhood—a persistent split in the previous decades in São Paulo, with rare exceptions (Fontes 2008; Kowarick 2000:74; Secco 2012:40). This was particularly consequential for the incorporation of broad sectors of the population that were not given equal consideration in the previous arrangement, given their distance from the presupposed social role and image of the typical worker that fed the imagination and informed the practices of the left in the 1950s and 1960s—in this case, women, who were key players in most of the new grass-roots movements, were more likely to be included (Alvarez 1988; Araújo and Ferreira 2015). Contrary to the repertoire of national developmentalism, particularly in its Communist version, *the proletarian worker* was no longer a surrogate term for “the people,” or the lower classes, in this new repertoire—although leftist militants and intellectuals frequently used the term *worker* in the broader sense of “the poor,” or as a

generic antonym for “the elite.”¹⁴² Second, these new movements fostered a culture of participation and nonhierarchy, which opened opportunities for experiences of self-management (Gohn 1991). On many occasions, this peak of activism favored the creation of multiclassist alliances (Kowarick 1987),¹⁴³ particularly when specific areas of local or thematic activism connected with the national struggle against the military regime—a process that lasted from the early 1980s until the approval of the new constitution, in 1988. Also, these movements promoted a new vocabulary and practice of autonomy from the state (Gohn 1991; Kowarick 1987)—one aspect that they shared with the so-called new social movements in Europe, which occupied so much of the attention of sociologists in the 1970s and 1980s (see, for example, Offe 1985; Steinmetz 1994; Touraine 1981)

Moreover, this experience of activism led to the dissemination of new collective experiences that deeply impacted the lives of the individuals and communities that took part in them, representing a new dynamics of collective subjectification (Rancière 1991). These emergent structures of collective subjectivity, forged in the political struggle, played a key role in the restructuring of a political imagination that considered the community and the lived experiences of the lower classes a key element for political aggregation, displacing traditional narratives about the centrality of a predefined working class in the definition of social conflicts.¹⁴⁴

¹⁴² That is certainly true even in the case of the politics of the Workers’ Party. The party addressed several different sectors of the middle and lower classes, despite the importance of the labor movement in its constitution (Anderson 2011; Secco 2012:257) .

¹⁴³ Original cultural manifestations, such a new style of documentary film epitomized by Eduardo Coutinho’s *Cabra Marcado para Morrer* (1984), also signaled new possibilities of engagement between the intellectualized middle class and the lower classes. In Coutinho’s very influential films, the mythical, heroic “people” of Cinema Novo, as well as the backward, hypersexualized or overly festive people of other genres (such as the popular “chanchadas”) are replaced by a more careful investigation of the life histories, dreams, and challenges of the lower classes.

¹⁴⁴ It is not a surprise that studies of these movements tended to reflect on the international literature concerning the everyday dimensions and the experience of the lower classes (Castoriadis 1998; Certeau 2002; Lefebvre

Furthermore, this political repertoire incorporated a new grammar of rights—and of citizenship as the right to have rights (Arendt 1973; Gohn 1991; Holston 2009:14)—that was not dependent on a previously established teleology or on the idea of the emergence of a class with a certain historical mission. This agenda of rights constituted, in terms of its discourses and demands, a “social developmentalism” (Nobre 2013) that would not completely supplant the old national developmentalist repertoire, which had focused on disputes around the axis of class politics and national independence from “imperialist forces” (Brandão 1997:78), but that would help to delineate new forms of progressive activism throughout the 1980s and provide the main frame for the left during the elaboration of the 1988 constitution. Finally, these movements developed or incorporated a gamut of new contentious performances that manifested those new values: land occupations, neighborhood meetings, religious ceremonies with political purposes, elaboration of draft articles to the new constitution, and collective housing construction, among others. At this point, the breakdown of the theory of history of national developmentalism was coextensive with the dissemination of a theory of the subject that did not depend on the model of a predefined consciousness; in other words, it recognized the importance of the *practice* of struggle as both a strategy and a political pedagogy and of a theory of history that magnified the *historical present*.

In this new repertoire, the idea of “the people” that intellectuals, activists, and progressive political leaders articulated was no longer that of a passive depository of hopes from a distance: social movements were protagonists in the constitution of a new active articulation of the people as a composite of insurgent movements demanding new rights. This would have crucial repercussions in the elaboration of housing programs for the people.

2008; Thompson 1964). Concepts such as “consciousness” and “revolution” lost space to a new vocabulary that better reflected the new forms of organization and their connections with the lives of the lower classes: concepts such as “experience” and “culture” acquired a new centrality (Guimarães 2002; Sader and Paoli 2004).

Housing movements and the right to housing

Housing movements expanded dramatically at São Paulo's peripheries from the late 1970s until the early 1990s. Actually, what emerged was an extensive articulation of movements that addressed issues of the right to land and to housing, legalization of irregular occupations, slum urbanization, democratization of construction processes and the management of housing programs—as well as the more traditional neighborhood associations (Gohn 1991). This large “social movement industry” (McCarthy and Zald 1977) profited from (and also helped to induce) the aforementioned opening of political opportunities in the Brazilian political system throughout the 1980s as well as from the election of state and local government officials who were more attuned to those new forms of organization and accepted the opening of new political channels between the administration and the organized sectors of civil society—such as governor Franco Montoro (1983–1987) and São Paulo's mayor Luiza Erundina (1989–1992).

These new movements represented a development of the traditional forms of popular occupation of land and production of the city, but they also innovated in their claims, forms of organization, and frames. Some of these movements, particularly the ones that addressed the legalization of land tenure and the urbanization of slums, partially accepted the historical conditions by means of which the fringes of the city had been produced in the previous half century, through the coordinated action of low-income families and without the assistance of the state. Historically, the forms of production of the city by the lower classes in São Paulo as well as their claims to livelihood frequently involved some violation of the law that the state either conveniently accepted or to which it turned a blind eye. Nevertheless, these movements tried to reverse that situation of a generally accepted “state of exception” (that is, illegality of

land occupation and the precariousness of a built environment produced by means of family-based self-construction) in order to legalize those occupations, to integrate slums and other forms of precarious neighborhoods into the city, and to provide a new form of organization and a novel political meaning to the traditional processes of autoconstruction (Holston 2009). To use Partha Chatterjee's concepts, these movements operated along the borders of "political society"—that ambiguous legal and social space traditionally occupied by the urban poor in their rapport with state and "civil society," that is, the space of recognized legality and bureaucratic predictability that characterizes the upper classes' forms of engagement with the state and the law (Chatterjee 2006, 2011).

Some of the movements that emerged in this context organized occupations of public or private properties in São Paulo, mostly in peripheral neighborhoods. These occupations were part of a larger strategy that involved attraction of the state's and the media's attention, the demand for the construction of housing units in the occupied properties, and a plan for the consolidation and expansion of those movements, since these occupations attracted homeless families (or families who lived in precarious housing units) that could potentially become part of the movement.

One the most important occupations took place in 1981 at Fazenda Itupu, a 0.63 square kilometer (63 hectare) public empty lot in the southern region of São Paulo, which was carried out by around three thousand families. On the same day, those families also informally divided that land into around two thousand housing lots—a practice that would be repeated in several occupations after that, but which did not prevent their eviction by a police force of three thousand officers (Sardi 1987). This occupation received wide attention in the national

media, and it became a formative event to several organizations throughout the metropolis (Gohn 1991:73).

Reginaldo Oliveira de Almeida (Didi),¹⁴⁵ one of the main leaders of a series of occupations and self-build cooperatives in Osasco, a municipality in the western region of the São Paulo metropolis, recalled the first phases of the struggle for the establishment of Copromo, one of the earliest and most influential experiences of the housing movement struggle in the region:

Low wages, very high rents in the 1980s.... It was a period of very expensive rent, and there was this world of land here in front of us that was said to be owned by Cohab¹⁴⁶ ... Then we went on and occupied that land. We called it “invasion” at the time. We went there and occupied it all. We set up headquarters there, and Cohab came with trucks and knocked it down. It was a hell of a bush this terrain, but we resisted several demolitions of our headquarters. Then, after the fourth time they knocked it down, I think, it was the carnival of 1986, then we decided to occupy it permanently.... Father Ferraz, who has passed away, this priest was the one who guided us the most, who helped and gave us courage.... About four thousand families occupied it.... We were organizing the community here, and we met Adão Pedreiro, who was killed in a movement activity in São Paulo. Then we agreed that when we occupied here, they would occupy another piece of land in São Paulo. And then the police would come, and we were determined to die, because we had nowhere else to go. Either we stayed on the land or we died in police hands.

Didi’s description touches on the main conditions, performances, and discursive frames that were part of the repertoire of housing activism in the 1980s and early 1990s in São Paulo.

First, he mentions the housing crisis that manifested in a growing housing deficit and a continuous rise of rent across São Paulo. This crisis was one of the consequences of the continuous growth of the metropolis at a time of severe economic crisis and the failure of official programs to meet this growing demand, especially after the closing of BNH in 1986.

Moreover, Didi describes a common dynamic of struggle: the occupation of public land and

¹⁴⁵ All remaining quotes in this chapter are from interviewees, unless specifically noted.

¹⁴⁶ Cohab is the municipal housing agency.

the organization of families to exert pressure on the state for the construction of houses. This organization usually led to the creation of ties across the metropolis, with the coordinated action of organizations that engaged in simultaneous land occupations—signaling a routine of exchange and learning, particularly among leaders of each local organization.

Furthermore, progressive members of the Catholic Church played a central role in helping the movement to organize and to foster a general atmosphere of hope at the grassroots level. Activists in different regions of the metropolis emphasize the role played by different bishops and priests in organizing the movement. Several of these religious men and women also acted as negotiators and brokers between the movements and the state.

Didi also mentioned the symbolic struggle that took place at the linguistic level: the term *invasão* (invasion) would soon be replaced by the term *ocupação* (occupation) in the vocabulary of housing activists and their political allies to designate the initial phase of the struggle, during which families squatted on the land that they claimed. *Invasão* denotes a violent and illegitimate act and highlights the breaching of ownership rights, while *ocupação* connotes a more legitimate act of claim making—for the right to housing, in this case. The first was (and still is) commonly used by the police, land owners, and the media to denote squatting settlements. Then, during the 1980s, the housing movement gradually began to use the term *ocupação* instead. By framing their actions as an occupation, housing movement leaders attempted to stress their demand for participation in the emergent civil society and to put forth the claim that the right to housing and to land should be seen as at least as important as the right to property.¹⁴⁷ Finally, Didi pointed to the violent and very frequent clashes with

¹⁴⁷ The 1988 constitution recognized that the “social function of property” should be guaranteed—a right that housing movements as well as landless workers’ movements have frequently claimed as the legal basis for the occupation of unproductive or unused properties.

the state and the police, which could, in some cases, lead to the death of activists, as in the case of Adão Pedreiro.

During this process, the different local organizations developed a relatively stable organizational and political repertoire. The housing movement was frequently organized in different hierarchical levels, from local “origin groups” up to national organizations. The origin groups were responsible for organization, political education, and communication with local families. Beyond that, a regional sphere of the movement concatenated and coordinated the activities of origin groups and cooperatives in a certain region of the metropolis. Finally, each of these regional organizations was commonly associated with a larger movement (for example, the União dos Movimentos de Moradia—UMM, or the Union of Housing Movements). These larger movements were part of a constellation of organizations with different levels of articulation that were active in the field of housing, right to land, and the right to the city broadly defined—such as the Landless Workers Movement (MST), the National Movement for Urban Reform (MNRU), the movements of tenement residents, and several slum dwellers’ organizations. The three levels of the movement acted in coordination during land occupations and in negotiations with the municipal or state governments. After a certain piece of land was assigned for the collective construction of social housing, an association was formed, comprising members from different origin groups in a certain region. Families in all origin groups accumulated points for participating in movement activities, such as protests, occupations, and construction routines. These points would define when a family would be allocated to one of the self-build associations. These associations were finally responsible for hiring a technical office (“*assessoria técnica*”) that would help them define a project and coordinate the construction work.



Image 30. Inauguration of São Francisco VIII, a housing complex in the neighborhood of São Mateus, in São Paulo. The signs read: “Honesty score!!!: Self-build cooperatives 153 vs. 0 building contractors” and “Remedy against corruption: self-build cooperatives and self-management.” Source: <http://cidadeaberta.org.br/>.

Housing laboratories and the connection between architects and housing movements

This intensification of activism and organization at São Paulo’s peripheries did not go unnoticed by progressive architects, who had been experimenting with new forms of engagement with peripheral populations since the mid-1970s. In 1975, the São Paulo Architects Union (SASP) promoted a first organized attempt to work with a community on the outskirts of the city, in the working-class neighborhood of São Miguel Paulista. The leadership of the union invited Joan Villà, a Catalan architect who lived in São Paulo, to take part in the project. Villà had studied architecture at FAU-Mackenzie and, between the late

1960s and early 1970s, lived in Europe to escape persecution from the military regime, given that he had been a militant in the Brazilian Communist Party. In Spain and Italy, he became acquainted with the experiences of cooperatives of architects, many of which had anarchist inclinations. Those cooperatives were influenced by autonomist ideas of workers' self-management, which were an important part of the constellation of the left in Europe at the time, after "autonomism" became a philosophy and practice of activism (Alcoff and Alcoff 2015; Eley 2002). Villà had the chance to get to know the work of architects in low-income communities in those countries. Along with Jorge Alfredo Carone and Alfredo Paesani, he formed the Cooperative of São Paulo Architects Union. Villà described some of the challenges they experienced in the attempt to approach those communities in the first phase of that experience:

I had a meeting with all the priests of the diocese.... What I was going to propose, and I was hoping they'd accept, is that at Sunday masses for a month they would announce that we would go there.... That was very curious because, in the parish hall, which was a very large space, a table was set up with chairs.... Here were the architects and the people who went to mass; [the priest] had already announced that we would go that Sunday, and there were lots of people. Well, that happened in a series of weekends, several Sundays, and the procedure was always the same: architects met people and organized the work; then in the evenings at the headquarters of the union, which was on Avanhandava Street, I read everything and distributed the work. We got all sorts of demands, from people who had a house about to fall owing to infiltration or because a small stream invaded their plot. There were also people who wanted to expand their properties, and so on.

However, that experience, one of the first institutionalized attempts to overcome the huge geographical, cultural, and political distance between the field of architecture and the struggles for housing at the peripheries, had very limited success. Villà comments on the reasons for this initial failure:

Fundamentally, it failed because it was a very naïve thing.... None of the architects had ever set foot in a place that was more than three or four

kilometers away from Praça da Sé¹⁴⁸; the majority lived in neighborhoods such as Pinheiros, Perdizes¹⁴⁹, etc., etc. That is, they had no knowledge of the periphery, not even through cinema.... Initially, it meant entering a completely unknown universe, and the other thing that I also saw very clearly was an absolute and complete unpreparedness to design with limited resources.

This “naiveté” that Villà describes shows the lingering effects of the spatial and social divide between architects (even progressive ones) and the population of São Paulo’s peripheries. A second reason for the relative failure of the experience, according to Villà, was the fact that the cooperative was working with individual families and not with associations and movements, as would become the common practice a few years later.

However, this pilot experience helped to shape other relevant movements of renovation of architectural practice in the period. Some of the architects involved in the experience of the cooperative, especially Jorge Caron and Villà, founded the architecture program at the Faculty of Fine Arts (Faculdade Belas Artes) in 1979—the third higher-education institution to offer training in architecture in the city. At Belas Artes, Villà coordinated the housing laboratory starting in 1982. This lab was the first experience of its kind in São Paulo. The lab was intended to renovate the practices of design and construction within a context of lack of resources and in direct contact with the neighborhood associations and the housing movements that had started to grow in the period. The faculty at the laboratory also included Nabil Bonduki, Antônio Carlos Sant’Anna, Olair de Camilo, Ives de Freitas, and other younger architects who would later work in technical offices that provided assistance for low-income communities. The lab would be closed in 1985 by the school administration after a faculty strike that led to the firing of Villà and other lecturers. At the

¹⁴⁸ São Paulo’s central square.

¹⁴⁹ Middle- and upper-class neighborhoods on the west side of São Paulo.

time of its demise, the laboratory was involved in housing projects in two different peripheral neighborhoods in the southern region of São Paulo: Grajaú and Recanto da Alegria.

The guiding principles of the laboratory are expressed in a 1982 document presented at the Twelfth Brazilian Congress of Architects: “The housing laboratory has as its main objective the formation of a new professional body able to intervene in contemporary Brazilian reality by means of the material production of architecture and urban space,... to develop experimentation in teaching and applied research,... and to reach a conscious and possible option of work directed and subordinated to the needs of broad segments of the population” (Pompéia 2007:12). Similar principles were also being disseminated at the same time in other spheres of the field of architecture in the city. At Mackenzie, for example, students throughout the 1980s had growing contact with experiences of democratic planning, and some were deeply influenced by lecturers who had worked with self-build cooperatives. One office that would be very active in this area, Ação Direta (Direct Action—AD), was formed by Mackenzie graduates. Joel Felipe, one of AD’s members, describes the general feeling that he shared with some of his colleagues: these young professionals were not to work only for the reproduction of a “designer’s architecture” (“arquitetura de grife”), but they should also be involved in community organization.¹⁵⁰

These principles and the creation of several architecture offices in the late 1980s that envisioned working with peripheral populations show that the semio-material practices of design that dominated the field in the 1950s and 1960s and that lost centrality during the 1970s faced new challenges—political as well as constructive—that would provide templates for the elaboration of a new program for low-income housing. They departed from the dyad of design/avant-garde that dominated the practices of the previous generation, since they

¹⁵⁰ Joel Felipe, interview with the author.

proposed a sounder relationship between the designer and the user—in the somewhat colorful language of the document, one of “subordination to the needs” of that population. That repertoire was associated with the emergence of practices of participatory design and collective self-managed construction in deep contrast to the centrality of the architect’s design as the manifestation of her vision of national development and to the centrality of the quest for industrialization.

Vitor Lotufo, who worked at Recanto da Alegria, expresses this change of political perspective among progressive architects and the divergence from the previous dominant generation:

The major concern that existed with respect to public housing [in the 1960s] was industrialization. I think the mentality at the time was that a house should be like a car. The more it was produced, the more industrialized, the cheaper it would be, and more people would have access to housing, right? And I think it’s a poor vision of housing. So I think that, actually, social housing began to interest me more in connection to politics.... So, for example, Zezinho Magalhães... I think it was a formal solution to architecture. For us, the dominant motive was to build with the people.

This sum of principles is in part the consequence of the internalization within the field of architecture of the emerging political repertoire on the left of the period, renewed by the advent of new social actors and by the struggle for democratization (Gohn 1991; Sader 2010). That repertoire slowly became associated with a number of techniques and materials, an emerging repertoire of architectural semio-material practices of design and construction that experimentally begin to mediate the production of neighborhoods and peripheral housing projects throughout the metropolis in following years, when a number of cooperatives and other organizations of mostly young architects started to design with individuals and social movements at the periphery and to work in the construction of their housing.

Materials and techniques for a new program

Popular building practices and materials motivated many of these attempts to develop cheaper construction techniques, such as soil-cement (similar to rammed earth) and later experimentation with on-site prefabricated concrete blocks, which were further developed at Unicamp, where Villà started to work in 1985 together with architects and engineers (such as João Marcos Lopes and Yopanan Rabello) who would later open technical offices dedicated to work with social movements and communities.

Influenced by this experience, the young engineer Guilherme Coelho visited Uruguay and recorded on video the experience of these cooperatives. Coelho would drive around the peripheries of the city, showing this video to neighborhood associations and new housing social movements. This video and the discussions it fostered influenced the self-managed housing project in Vila Nova Cachoeirinha, in which Coelho was involved, and many other projects on the outskirts of São Paulo throughout the 1980s, when the screening of Coelho's video became a typical "business card" in exchanges between progressive young architects and housing movements (Baravelli 2006). In Uruguay, construction cooperatives were associated with labor unions, and they organized the construction and management of working-class housing units across that country. The Uruguayan experience influenced local discussions about self-management, the development of cheaper and accessible construction techniques, and the practice of association between architects and local communities in São Paulo. During the 1980s and early 1990s, several housing movement leaders as well as architects involved in this new modality of design and construction visited Uruguayan cooperatives to learn from their experiences with autoconstruction and self-management.

One of the techniques that Villà and his colleagues developed at Belas Artes and later at Unicamp was also inspired by what they observed at a construction site in Uruguay—and, according to Villà, in the architecture of Eladio Dieste, the Uruguayan architect who was known for a peculiar use of catenary arches and brick. The technique of ceramic blocks, developed by Villà and his associates, addressed the specific needs of construction in a situation in which the workforce does not have deep familiarity with construction techniques, especially with the use of concrete. Ceramic blocks were produced horizontally by pouring cement to connect ceramic bricks; those blocks would then be lifted—often manually, if they were small and light enough—and used in the construction of roofs and walls (image 31). Several housing movements in the state of São Paulo heard of the “Unicamp model” and adapted it to their local needs (Gohn 1991).

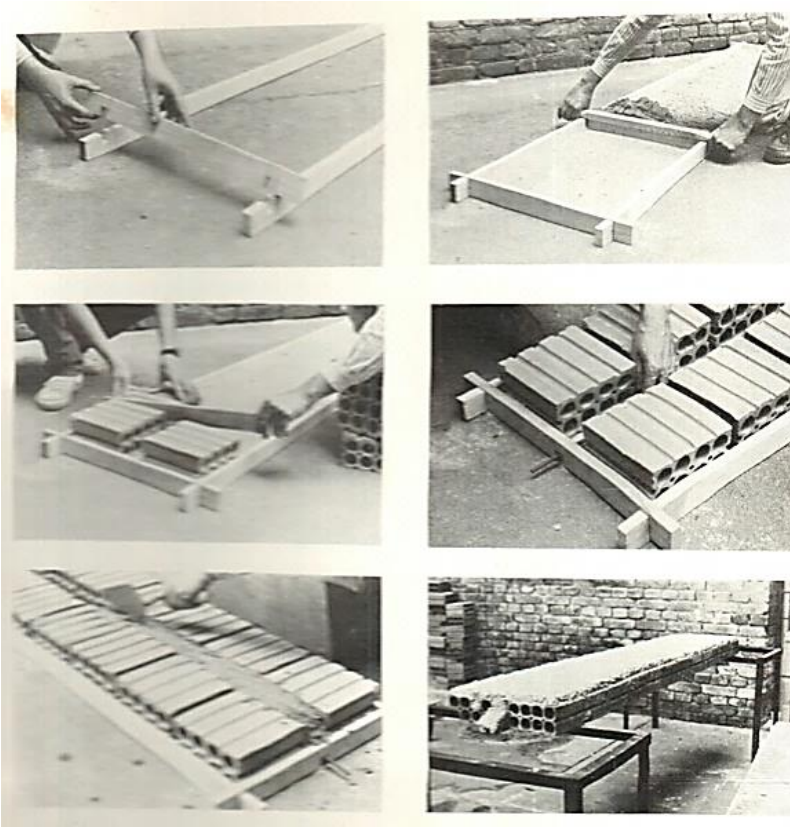


Image 31. Sequence showing the production of ceramic panels. Source: de Almeida (1985).

That was not the only technique that those architects experimented with in local communities during those years. Earlier, in their work at Recanto da Alegria, Villà, João Marcos de Almeida Lopes, Roberto Pompéia, Vitor Lotufo, Nabil Bonduki, and Antonio Carlos Santanna attempted to adapt a traditional technique of construction with rammed earth (soil mixed with cement) that was cheap but that also took a significant physical toll on the members of the community building those houses, who had to perform the tough work of ramming the mixture to produce the soil-cement. Also, Recanto da Alegria, a very early experience in the constitution of this new epistemic and political community of architects and low-income families, was also the location of an early clash between the repertoires of the architects and the expectations of the local residents, who, for example, did not appreciate the design or understand the possible uses of a shell-like structure that the architects proposed and started to build (image 32). Some of the architects understood that the structure could be a community space, but one person from the community added a makeshift roof to it and used it as a housing unit for a family and later decided to tear it down. If the design was not appreciated by the community, at least the attempt to build this curved shared space influenced the planning and construction of other housing projects. Several housing complexes designed by Usina (an office created in the late 1980s by João Marcos de Almeida Lopes and Wagner Germano, among other architects who had worked either in those housing labs or with other cooperatives) usually began with the construction of a community space that could initially house meetings and assemblies during the construction process, as well as some of the construction materials, and could later have other uses that the community would determine.



Image 32. Recanto da Alegria, construction of a community facility, around 1984. Source: Vitor Lotufo's personal archive.

This new form of collaboration between architects and housing movements gained traction in the late 1980s with the formation of new offices (such as Usina, Fase, and Ação Direta). Architecture journals such as *Arquitetura & Urbanismo* and *Projeto* slowly recognized the work of those communities and architects. Also, a new progressive leadership was elected at São Paulo Architects Union in 1987, many of whom had previous experience working with housing movements.

This impact on the field of architecture accompanied a change in the practices of design toward an inclusion of the workers and residents in the practices of planning and management of the housing projects. This new politics encompassed an emergent *regime of legibility* that contrasted with the previous ideology of design, which, as I argued in chapters 3

to 5, promotes the semiotic accessibility of the design to a small circle of professionals with the technical expertise to decipher those codes. By partially attacking the semio-material practices that sustain the ideology of design, those critical architects attempted to question (at least partially) the boundaries of the field. Wagner Germano, from Usina, describes this process:

But the fact is that you have a construction site with people who have no experience in construction; a very large part of those people did not have specific training, did not have proper skills to work in construction.... I remember that in Diadema we looked at them and said: look, the third layer of bricks is equal to the first, third, fifth, all odd layers are equal to the first, and all the evens are equal to the second.... So it all had to be drawn so they would look and understand. Of course, a construction worker doesn't need that.... So the drawings had to be done in a way that a person with no training in construction would be able to read.

Nevertheless, the use of easy-to-learn techniques and, in some cases, low-tech materials was also accompanied by the preoccupation to lower the prices of construction, diminish the physical toll, and speed up the construction process. Many of the technical offices suggested the use of fabricated components, particularly the ones that demanded higher technical skills—such as stairs (see image 33). This strategic use of industrialized components indicates that the choice of techniques and materials was not informed by any kind of romantic attachment to premodern or popular materials, techniques, or styles. Their choice, at least ideally, responded to the pragmatic requirement to produce built environments that architects and housing activists considered of better quality than the average housing blocks commonly financed by BNH and other housing authorities, at lower cost, and with a larger square footage. Simultaneously, the deployment of the commonly low-skilled work of the future resident families was viewed as an opportunity for political education during the initial phases of occupation and planning, as well as during the construction process.



Image 33. Construction of the Talara housing complex by a self-build cooperative. Usina coordinated the participatory design and construction of this housing complex. In this image, it is possible to see the combination of the work of future residents using a more traditional construction material (structural brick) and prefabricated components (metallic stairs). Source: Usina.

Construction as an arena of articulation

The combination of participatory design, self-management, and cooperative construction became widespread at São Paulo's peripheries from the mid-1980s through the

early 1990s. This repertoire of organization and constructive practices allowed for housing movements to convert construction projects into local experiments of autonomism—although a form of autonomism that still relied on the state for funding and legal matters, such as land regularization.¹⁵¹ Like many other social movements during the previous thirty years in different Latin American contexts (Alcoff and Alcoff 2015; Aparicio and Blaser 2008), those construction sites became spaces for the “performance of community” by means of the manipulation of signs (drawings, regulations, plans, spreadsheets) and materials (blocks, concrete, tools).¹⁵²

The creation of these *spaces of prefiguration* was not new to the left from a broader historical and geographic perspective—the Paris Commune, for instance, seems to have been a remarkable and continuously influential social and political experiment with a similar political rationale (Ross 2015). In this theory of history articulated by the manipulation of signs and materials, the present is embellished as a time of experimentation and community making, as well as a moment for the accomplishment of a right deemed fundamental: the right to housing. The semio-material practices of collective design and construction were to support and reinforce the political repertoire that emphasized the development of consciousness via actual, current practices of organization, management, and construction.

Isabel, a resident and activist who participated in the construction of União da Juta, succinctly describes the collective construction process:

¹⁵¹ Land regularization is “the process of public intervention in illegally occupied zones to provide urban infrastructure improvements and to recognize ownership titles or other occupancy rights” (Calderón 1988:2).

¹⁵² As Chatterjee asserts, “This is an equally crucial part of the politics of the governed: to give to the empirical form of a population group the moral attributes of a community” (Chatterjee 2006:57). This performative dimension of political organization seems a vital element of the politics of subaltern groups in several different contexts. In the case of the politics of self-build cooperatives, social movement leaders and at least some of the architects working with them at that period attempted to use the process of building as a pedagogical set of practices and spaces where a new society could be tested on a smaller scale.

We came [on weekends], depending on the task force.... The self-build cooperative works like this: ... We had task forces according to what we had to do, like masonry, hydraulics, electric work.... The hardest part of the construction was the foundations because it's hard work, and no one sees with naked eyes because it is all under the ground. You dug the ditches, poured concrete, did everything, but nothing came out of it; you could not see the masonry. So folks would get discouraged and say: "...oh God, we will never end this," but that is how it's done, in task forces, with people who opened the trenches, while others moved out the earth, and others made hardware frames.

Wilton, a resident at Copromo and an experienced construction professional who worked in several different self-build cooperatives, points out that a lot of the excitement with the construction process stemmed from the residents' perception that their work would be directly converted into something of their own:

[The self-build cooperative] is great. It's great because ... you work with people, with these humble people, and you can feel that person's dedication. They come over on the weekend; they know what they are doing. If they are digging or if they are carrying a bucket, if she's leveling the land, whatever they are doing, they say, "Oh well, this will be my house," even though they don't know exactly where their apartment will be yet. But they're saying, "I'm working for me. I'm working on my house." They feel so much pleasure when they arrive in the neighborhood where they live and they say, "I'm helping to build my house there." Boy, it's so rewarding, you're helping that person make what is theirs.

Several of my interviewees, both architects and activists, asserted, however, that the benefits of collectively designing, managing, and building something that was to be their own and the moments of exchange and learning that marked this process were balanced by a series of challenges. These hurdles stemmed from the arduous nature of the work itself, from the lack of continuous assistance and the frequent conflicts with state agents, and the occasional disputes between the movement's leadership and architects working on certain projects.¹⁵³

¹⁵³ One of the architects that I interviewed mentions some of these tensions between movement leaders and architects: "There is a time when you no longer know how much they [the movement's leadership] want to take over the production process in the work organization. We thought it was an intrusion beyond what was part of the participatory management, which we call participatory architecture; then there was conflict.... I always believed

Underneath all these limits and frictions, a controversy about the essence of this method of construction and organization came up in a few interviews. In the statements of architects and activists, the model of the self-build cooperative is sometimes described as a utopia and sometimes as a “necessary evil.” Wagner Germano, an architect at Usina who worked with the communities at Copromo, União Da Juta, and several other cooperatives, summarizes the later position:

So why the self-build cooperative [mutirão]? It’s not an option.... It’s the lack of an option.... We always said: it would be nice if one day we could have ... the community manage the resources. So it would get the funding. Then it would hire the technical staff to make the project, and then it would manage the construction work, hire workers, hire a contractor or a few little construction companies, maybe some cooperative of construction workers. Then people wouldn’t have to spend weekends doing heavy work, but they could take care of the management of these resources.... Of course, it wasn’t like that, so we needed some way to make it interesting and less burdensome and also take advantage of what it could offer. So this intense contact of the families participating in the collective construction process, meeting all weekends to work on the construction site... We thought it was an opportunity for us to discuss some other things.

More frequently, both frames (“utopia” and “necessary evil”) were used interchangeably by the same actor. For example, Isabel emphasizes the physical burden imposed by that kind of work—one that was conducted mostly by women, many of whom were elderly, with no previous experience in construction—but she also highlights how that method of management, construction, and organization generated a sense of community and empowerment¹⁵⁴:

that there should be no super-exploitation of labor, and working only on Saturdays and Sundays was not enough to build houses fast. And deep down people wanted to finish their houses, right—to get rid of rent. And what did we have to do? Hire skilled labor.... So what was then the questioning of the movement’s leadership? So, wait, you know, we are subverting the order. We are a project that for them was almost socialist. It was an island; we were socialism surrounded by capitalism.” Although almost all the architects interviewed mentioned similar sources of conflict, they had different experiences and perceptions about how much they mattered to the final housing project or to the political dynamics involved in their management and construction.

¹⁵⁴ Didi, the most important leader at Copromo, argues that the women’s participation was numerically and politically determinant “because they suffered more; they wanted to get out of that situation of having to pay rent, of not having food at home, and they wanted to have their own home. I think they experienced that more than men. The man—when we didn’t have a self-build cooperative there—he would go play soccer, drink booze,

When we construct as a self-build cooperative, it's good because nobody knows where your unit will be; you know it's here, but you do not talk like this: "I will work because this is my place." No one knows. We knew we each had a unit, but we didn't know exactly where, so no one could be careless with the others because everybody wanted to finish their houses. So everyone, or almost everyone, would fight equally; that's the good thing about the cooperative. It is very tiring; those who don't like to fight, to organize, they give up!... Sometimes people who were the official future residents said they had no one to send to work, and that was a lie. It's because the family did not understand and did not want to participate in the task forces. They sent those old little ladies, who did not have the physical strength to work in construction, to pick up a wheelbarrow full of dirt or a block to take to the masons.... It's heavy work.

Beyond the strenuous nature of the work, Isabel's testimony highlights one of the conflicts that took place in several different projects: the difficulty of maintaining solidarity and assuring the continuous participation of all the future resident families. In order to guarantee their participation, the movement leadership implemented several strategies, from informal follow-up and political education to a system through which the leadership of each organization attributed points to participation in cooperative activities, from construction to attendance at meetings, town halls, and rallies.

Furthermore, the dominant narratives of housing activists emphasize the impact of this method of construction and management for the constitution of strong social ties in those communities that would remain active to a large extent for years after the conclusion of construction. Although it is certainly true that collaborative construction impacts certain aspects of occupation—for example, there is ample evidence that the initial residents tended to stay in those houses years after its initial occupation, at a much higher rate than in other forms of social housing—there are also several testimonies that challenge the extent of this impact.

on Saturdays, Sundays; he would arrive home at night and want the house ready, clean, food on the table, and the woman wanted to have her space."

All my interviewees emphasized the strong connection among the future residents and the concern with creating positive collective dynamics after occupation. But some mention that those strong ties were not preserved after the conclusion of building. In other words, the alternative dynamics of construction seemed to have a mild impact on the dynamics of habitation. This impact also seemed to vary depending on the social and urban context of each of these housing complexes. For example, when asked about the relationships within the community after occupation, Wilton, from Copromo, says: “I’ll tell you something, that’s what the problem is. Because we were closer friends when we were building than after living here. Because people now go in and out of their homes and say ‘hi, good afternoon, good morning, good night,’ and this is it.” In contrast, Didi, one of the main leaders of Copromo during construction and occupation, has a different perspective: “Because [the cooperative work] lowers the costs of living for those who are making it, everyone can make it; then one values more what he did. Look, we are here in this neighborhood, which is called ‘Terra é Nossa’;¹⁵⁵ here and even in Copromo, there are no fights, no deaths, because we’ve lived together one, two years, building together, doing something collective, as a collectivity. So there is mutual respect between people.”

¹⁵⁵ “Our Land,” a neighborhood next to Copromo, also built after the occupation of an empty lot by the residents’ cooperative in the 1980s.



Image 34. Three *mutirantes* (self-build cooperative workers) at Fazenda da Juta. From left to right: Tomazia Luiza de Jesus Gonçalves (retired maid), Elza Nunes Feitosa, and Iracema Sabino Bispo (both retired factory workers). Source: Márcia Inês Alves, 1992, Casa da Imagem.



Image 35. On the left: Delmira Jesus Nazaré (seamstress) works at Fazenda da Juta. Source: Márcia Inês Alves, 1992, Casa da Imagem.

Many activists, as well as architects and scholars, argued that the methods of work and the organization of the construction sites did not solve the problem of overexploitation of the workforce (Carvalho 2004; Oliveira 2006). Some of the associations required that families put in up to eighty weekly hours of work for construction and other activities (Gohn 1991:119), tasks that could be painstakingly exhausting to many of those worker-residents.

One of these architects, with wide experience working at self-managed construction sites, argued that owing to the shrinkage of wages, this was the only alternative left for the majority of poor families at the time. In contrast to the traditional process of self-construction organized at the family level, this collective articulation represented a significant political opportunity for the dissemination of a new language and new values of citizenship among those families. Many of the activists and architects involved also considered the pedagogical construction site as a space where at least a few of the future residents could develop technical skills that could lead to new professional opportunities in the future—which seems to have been the case for at least a small fraction of them, according to some of my interviewees.



Image 36. Meeting before a construction day at Fazenda da Juta. Source: Márcia Inês Alves, 1992, Casa da Imagem.

The “right to architecture”

This program for the built environment also corresponded to an attempt to forge a new economy of dignity. In this new economy, the “right to architecture” was to be incorporated as a horizon in the emergent political repertoire of citizenship. A major process of political conscientization and symbolic resistance in this new economy consisted in reimagining what a house for a poor family should be and to attack the widespread conception that those families would not be able to plan and manage the construction of their housing.

According to my interviewees as well as several documents on the politics of low-income housing in the period, this conception of the poor family as a passive recipient of a house was hegemonic among architects and engineers employed at housing agencies, such as

Cohab and CDHU. Many of the activists and architects involved in cooperatives enjoy telling stories about the clash between their expectations and the beliefs and habits of those state agents. As Isabel, for example, recalls:

[CDHU, the state housing agency,] gave us the drawings so we would pick their design, but we were organized and wanted decent housing, so we didn't accept CDHU's project. We discussed our project with the technical office [Usina]. I remember to this day when our technical assistants brought the first project that was different from CDHU's, and we liked it.... [CDHU's staff would say:] "The problem is that you came up with a very large project. This is not for the poor; this is a project for rich people."... We replied, "We'll show that we can have it. We fought for it; we fought for our rights. It is not because we are poor that we have no right to have a decent and good house."

Wilton, from Copromo, also recalls one of these encounters with a CDHU engineer: "Do you know what the guy told me? He said: 'How do we, poor people like us, want to live in a middle-class apartment?'... I turned to him and said, 'So we have to live in matchbox? So we have no right to live in a nice apartment?'"

Every activist and architect I interviewed shared similar stories of clashes between "mutirantes" and state officials and employees. Usually, those were conflicts between the emerging economy of dignity and the disruptive practices of design and construction that were being articulated in this new program, on the one hand, and the practices of construction and design that informed the public production of low-income housing, on the other. The strategy of confronting these firmly held notions about how the poor should live attests that, at least in the case of the most active families, the new program deeply impacted their notions of self-worth, dignity, and rights.



Image 37. Fazenda da Juta, plans of a typical floor and apartments. Source: Usina.



Image 38. União da Juta. Source: Usina.

Activists and architects point out that many of the future residents themselves also shared those conceptions about what constitutes appropriate housing for lower-class families. The work of convincing public officials needed to be carried out in tandem with the process of political education of the future residents in order to reconstruct the traditional view of what “low-income housing” should look and feel like, how it should be built, and what spaces it should occupy in the city. In this precarious situation, social movement leaders and architects working with those movements did not initially find fertile terrain for a discussion about design, aesthetics, and environmental and material quality. These topics usually emerged during the process of organization and after long discussions and town hall meetings of activist families and architects.

Reginaldo Ronconi, an architect who had worked with cooperatives since his days as a student at Belas Artes, shares one memory:

At Recanto da Alegria, I was discussing a window with Clotilde. We would expand her house, build a new room. She had no money to buy a window, but I was there discussing with her where we were going to place the window and that we would deal with the issue of money later. We had to discuss where the opening would be— we would have to put the lintel, the architrave.... She turns to me and says: “I don’t need this window here; this is only my room.” “But how come you don’t need a window, Clotilde?” “Well, I don’t need it. Does a jaguar have a window where it lives?”

In this exchange between Clotilde and Reginaldo, the political pedagogy involved in the collaborative work of construction and design in this program becomes clear. The process of designing and installing a window becomes a gateway for a discussion of rights, privileges, and dignity. In Reginaldo’s words, “This right to the city, this right to architecture, means seeing oneself as a human being and therefore as someone who should have all these rights

fulfilled.”¹⁵⁶ Discussing, designing, managing the funds, and later building a window worked as a process of reimagining the human condition and the economy of dignity to which (and of which) that individual was subject.



Image 39. Copromo today (photo by the author, 2013).

Conclusion

The case of the articulation of a new program for low-income housing in São Paulo from the late 1970s to the early 1990s shows that the concepts of political repertoires and

¹⁵⁶ The concept would be incorporated as part of the housing policies during Luiza Erundina’s administration, when Ronconi, Bonduki, and other architects who had previously been involved with self-build cooperatives would take the lead in providing resources and formulating the guidelines for social housing cooperatives (Bonduki 2000).

semio-material practices shed light on the analysis of the formation of new assemblages of individuals, materials, concepts, techniques, discourses, and practices. In this chapter, these concepts oriented the analysis of the emergence and the functioning of a participatory program for low-income housing. This program was based on a present-oriented theory of history, a theory of the subject that attributes a central place to political practice, and an economy of dignity that attempts to resignify widely shared assumptions about low-income housing and the “place of the people” in the city.

In summary, this new repertoire formed an assemblage with a repertoire of semio-material practices that emphasized the participation of future residents in the design, management, and construction of housing units. This program dealt differently with the dilemma of the single and the multiple: the semio-material practices of participatory design and management together with the deployment of easily communicable methods of communication and construction helped to reconfigure politically and technically a repertoire of traditional practices of self-construction, usually carried out on a family basis or in a small-scale neighborhood. This reconfiguration also allowed this new political and epistemic community to attempt to organize the cooperative construction site as a laboratory of political innovation.

Self-build cooperatives were not seen by most of the activists and professionals involved as solutions to all urban problems in a context of poverty and deficient state planning. They were pragmatic solutions that called for the acceptance and transformation of traditional practices of self-construction, resignified by the collective organization of those families. They also involved a political and semiotic resignification of what housing for low-income families should “look like” and “feel like” and how it should be integrated into the

city and in the context of the new formation of rights that was germinating in Brazil at the time. This resignification also involved the reconstruction of material practices of design and construction, providing a new source for the renovation of the field of architecture.

The politics of this program intended to challenge the dominant practices of the field of architecture as well as to rethink (at least partially) construction as a political process, which was also to work as a space for political pedagogy. This political dimension of the program did not emerge in isolation from the conditions of production and the modes of inhabiting the city that characterized the lives of most of the urban poor in São Paulo: these elements are associated with a lack of resources, inaccessibility of housing produced either by the market or by the state, and the widespread practices of autoconstruction at São Paulo's peripheries. It was a choice that emanated from the lack of alternatives, but one that these professionals and activists attempted to resignify in a new assemblage. In other words, the program that emerged from this articulation of progressive architects and activists represented a pragmatic attempt to combine the technical knowledge available in the field of architecture at the time with the practical skills that existed among low-income families and communities in São Paulo.¹⁵⁷ In this sense, this articulation, which was simultaneously political and semio-material, also had an epistemic dimension, as many of the testimonies here attest.¹⁵⁸

Housing complexes built by collectively managed self-build cooperatives in association with progressive architects were described by one key architect as “spaces of

¹⁵⁷ This practical knowledge corresponds to James Scott's definition of “metis,” or a “...wide array of practical skills and acquired intelligence in responding to a constantly changing natural and human environment.” (1999:329). But, contrary to Scott's theory of the destructive shock between modern techniques and apparatuses, this program tries to articulate these different conceptual and practical repertoires.

¹⁵⁸ One should note that the negotiation and processes of combination of “expert knowledge” and the knowledges and experiences of laypeople involved has received great attention in the sociological literature in medical sociology and the sociology of law (Banaszak-Holl, Levitsky, and Zald 2010; Decoteau 2008; Epstein 1996; Luna and Luker 2013), shedding light on the problem of demarcation between science and the “outside world” (Gieryn 1999).

utopia” (Bonduki 1986). It is important, nevertheless, to point out that this was a grounded utopianism (Aparicio and Blaser 2008), or a pragmatic utopia that involved the congregation of existing practices and materials in spaces of limited prefiguration of new political practices—and, even more important for most of the residents involved, a pragmatic process for the acquisition of a house. This combination of the prefiguration of an emancipated future and the desire for house ownership as a form of accomplishing a right to housing signals how the temporality of that political repertoire actualized in this program embellished the historical present as a time of possibilities.

It is not my purpose here to judge whether those architects and activists were able to fully accomplish this program—and the testimonies throughout this chapter show that this is an unsettled debate among them to our days. Nonetheless, even the most enthusiastic housing activists and architects were aware that the historical conjuncture imposed several limits to the advancement of such a program. Beyond the limited resources and the recurrent resistance of state agents, the political repertoire of cooperation and the semio-material practices employed by the cooperatives had to live side by side with other practices and values, such as the valorization of property, occasional violence within some families, gender oppression, and disputes for leadership within and among different social movement organizations.

This emergent program required a questioning of the borders that delimited the field of architecture up to that time—that is, it entailed a critique of the dominant semio-material practices that established the parameters of the design and construction of low-income housing in the previous decades. To use Walter Benjamin’s description of Brecht’s theater, activists and architects involved in the assemblage of this program proposed a “functional transformation” of the practices of architecture (Benjamin 1998). The comparison between

this new architecture of cooperation and Brecht's theater is not gratuitous. Like epic theater, this emergent program emphasized the moment of production as a crucial dimension of the politics of architecture. In this new theater, the audience was to be transformed into active collaborators, leading to a rethinking of the enduring practices of performance and potentially to the transformation of the of the spectators' political perspectives. In Walter Benjamin's words, Brecht's theater was a model for a progressive literature, because a writer's production should be a model: "It must be able to instruct other writers in their production and, secondly, it must be able to place an improved apparatus at their disposal. This apparatus will be the better, the more consumers it brings in contact with the production process—in short, the more readers or spectators it turns into collaborators" (Benjamin 1998:98). A very similar perspective on turning urban residents into collaborators in the process of designing and building low-income housing inspired the political and epistemic community that advanced this emergent program in the peripheral neighborhoods of São Paulo.

CHAPTER 8

Conclusion

Who built Thebes of the seven gates?
In the books you will read the names of kings.
Did the kings haul up the lumps of rock?

And Babylon, many times demolished,
Who raised it up so many times?

In what houses of gold glittering Lima did its builders live?
Where, the evening that the Great Wall of China was finished, did the masons go?

Bertolt Brecht, excerpt from “Questions from a Worker Who Reads,” 1935

Brecht’s “Questions from a Worker Who Reads” can be interpreted as a political and semiotic critique of the ideology of architecture and urban planning. Brecht’s poem turns our eyes to the fact that popular narratives about architecture and urban history violently reduce our understanding of the forms of agency involved in the production of the built environment. The work of architects and master-planners is commonly glorified at the expense of a multiplicity of forms of subaltern agency that take part in the material, semiotic, and political processes through which cities and edifices are built. Ubiquitous first-person narratives of architects and most public discourses on cities and buildings repeatedly reproduce the ideology of design in the most diverse historical and geographic contexts. Buildings become “Niemeyer’s,” “Gehry’s,” and “Piano’s.” We talk of “the Paris of Baron Haussmann” and of “Moses’s New York.”

This metonymic mechanism also conveniently helps to conceal the political and physical violence frequently involved in the production of the built environment. One drastic but instructive example: when asked about the alleged death of more than eight hundred workers in the construction of stadiums and other infrastructures for the Soccer World Cup in Qatar that she helped to design, Zaha Hadid, one of the most celebrated contemporary architects, argued that “it’s not my duty as an architect to look at it” (Riach 2014). This claim is a strong (if extreme) example of the operation of the ideology of design, which forcefully separates the realms of design and construction and that symbolically and materially inflates the semio-material practices of design at the expense of other sets of practices involved in the production and use of the built environment.

This same complex articulation of different forms of practice that Brecht’s poem helps to unveil was certainly present in the history of São Paulo during the period under analysis in this dissertation. Artigas, in one of his last public speeches, argued that “with my houses I built São Paulo” (Artigas 1989:49). This grandiloquent assertion is partially correct: the houses that Artigas designed are formidable examples of the most aesthetically interesting and politically informed structures built in São Paulo, and he also helped to shape the field of architecture in ways that left a mark beyond the particular objects and spaces that he designed. Nonetheless, Isabel, an activist and resident at Fazenda da Juta, also illuminates another crucial aspect of this spatial and political history: “This was a desert, but because of the associations, which is where we came from, we were organized, and we built a city.”¹⁵⁹ Isabel emphasizes the crucial role that residents in peripheral neighborhoods had in the production of the majority of the metropolis’s built environment. As we saw, most of São Paulo’s buildings were (and continue to be) erected by residents themselves through a set of practices that self-

¹⁵⁹ Interview with the author.

build cooperatives since the late 1970s incorporated and transformed by an articulation with a political repertoire of participation, citizenship, and self-management. But there are still other forms of agency that also define parameters for the political and material production of the urban. For example, anonymous graffiti recently painted on the external wall of a park in Higienópolis, one of São Paulo's wealthiest and architecturally most sophisticated neighborhoods, reminds us that "capital is São Paulo's urban planner," a message that says a lot about the spatial dynamics of São Paulo's urbanization and resonates with most of the recent literature on critical urban studies.

By examining the problem of the cultural and material politics of low-income housing in São Paulo, this dissertation shows that looking at different moments of the social life of the built environment and the pragmatic process of articulation of political and semio-material repertoires is a productive analytical perspective on the problem of how the built environment becomes political. The sociological literature on the built environment has not devoted sufficient attention to the situated, pragmatic processes of political and semio-material articulation that take place in the design, construction, and habitation of the built environment. The concepts of *political repertoire*, *semio-material practices*, and built environment *program* provide an analytical vocabulary for the analysis of specific processes of articulation through which built forms become inscribed in circuits of social practice related to the exercise of power. Finally, I have shown that the process of producing and inhabiting the built environment is also part of a more complex social process of producing social and political collectivities. In the case of low-income housing, an architecture for the people and from the people is also an element of an "architecture *of the people*." Low-income housing—*habitação popular*, or popular housing, in a literal translation of the expression in Portuguese—is one of

the semio-material elements that defines the contours of such collectivity as a potential social and political subject.

Brief summary of the empirical findings and future research

This dissertation identifies two moments in which different political repertoires and semio-material practices were articulated as programs for low-income housing in São Paulo from the 1950s until the early 1990s. Those two programs were separated by an intermediary moment of crisis and rearticulation of the field of architecture and the field of power.

From the mid-1950s until the early 1970s, an ideology of design dominated architectural practice. This ideology was associated with a developmentalist belief in the possibility of and the need for the industrialization of construction. The architectural avant-garde was to be responsible for leading the production of the built environment as part of a larger historical process of national development and formation of a nation. Architects in the culturally dominant sector of the field articulated the semio-material practices of design and construction associated with a local version of brutalism and the political repertoire of national developmentalism in a program for low-income housing that proposed the state-led production of massive housing through the deployment of industrial and rational processes. Nevertheless, relations between the leading sector of the architectural field and the “people” that it should address were marked by a great social, geographic, and political divide.

During the 1970s, this brutalist program was deeply affected by several processes taking place in the fields of power and architecture. Some of the most important architects in São Paulo, who were historically associated with the left, were persecuted and in some cases arrested by the military government. This situation was accompanied by the demise of the

most important architecture journals, by rising disputes between students and young architects concerning the relevance and the political valence of the practice of design, and by a routinization of the brutalist repertoire that dominated architectural production of the previous two decades, now dissociated from the political repertoire commonly associated with it in previous decades. Moreover, the commercial sector of the field was increasingly influenced by the international repertoire of postmodernism, which was especially used experimentally in the development of new areas of the city—particularly Avenida Paulista, where steel-and-glass business towers quickly rose during that period. Schools of architecture multiplied in the 1970s and 1980s, leading to the dissemination of new practices and the reorganization of the field of architecture. Finally, some of the progressive members of the field changed their focus from architecture to urban planning, and a growing group of young architects slowly started to establish political and personal connections with peripheral, poor neighborhoods of the city and their residents.

During the 1980s a participatory program emerged. In this program, progressive architects established direct interactions and cooperation with housing social movements and created new forms of participatory design associated with practices of self-management of the construction site and construction via self-build cooperatives. This new architecture was less concerned with the national project of industrialization and more directly involved in a political and constructive solution for the housing problem at hand in direct connection with the future dwellers of those housing projects being built in peripheral neighborhoods. These architects developed new materials and construction techniques that were more conducive to the regime of collective self-building. The process of political democratization at the national level led to the opening up of political opportunities for the emergence of these new

movements and practices. The political repertoire that included elements of local participation, self-management, and direct connection between architects and social movements displaced to a large extent the developmentalist repertoire of the previous generation—although these younger architects were still concerned with issues of scale, reduction of costs, and efficiency. The previous image of the people was gradually replaced by a new articulation in which organized segments of the lower classes occupied a central place.

This historical and cultural sociology has to be complemented by future studies on the recent developments in the politics of low-income housing in São Paulo. In short, a preliminary analysis suggests that both programs have been transformed, re-created, and combined since the mid-1990s. Housing activism changed considerably in São Paulo after the period covered by this dissertation. Successive municipal and state administrations during the 1990s disinvested from programs that funded self-build cooperatives; moreover, during Paulo Maluf's conservative administration (1993–1996), many social movement leaders were persecuted, and several housing projects remained unfinished until the early 2000s. That deeply affected perspectives on housing activism in São Paulo's peripheral neighborhoods, which also suffered from the growing shortage of publicly owned land that could be the target of campaigns.

Additionally, housing activists gradually diversified their geographic areas of action and their repertoires of contention, focusing more on squatting in underutilized or empty buildings in central regions of the city and pressing the local government for the reform of those units for low-income housing purposes (image 40). The politicization of “centrality” amplified claims for the “right to the city” that were already part of the repertoire of housing movements in the 1980s.



Image 40. On the left, one of the hundreds of occupied buildings in downtown São Paulo. The concrete building on the right (Praça das Artes, by Brasil Arquitetura and Secretaria Municipal de Cultura, 2012) is one of the most celebrated examples of São Paulo architects' continued deployment and reinvention of the brutalist repertoire (photo by the author, 2015).

More recently, a large federal program for low-income housing construction (Minha Casa Minha Vida, or “My House My Life”)—implemented since the Workers’ Party Luiz Inácio Lula da Silva’s second term in the presidency (2007–2010)—has been steadily increasing the stock of low-income housing in most Brazilian cities, but in most cases under the same developmentalist and quantitative logic of the program funded by BNH during the military regime. This logic leaves aside crucial questions emphasized by housing activists and most progressive architects and urban planners: access to urban infrastructure, efficient

transportation, and, last but not least, architectural and constructive quality (Arantes and Fix 2009; Ferreira 2012). Only a very small percentage of the program's budget is committed to the funding of self-build cooperatives.

In sum, this politicization of city centrality as well as the current combination of elements of both a developmentalist and a participatory program in the recent politics of low-income housing, in Brazil in general and in São Paulo in particular, should be the object of future research utilizing the same concepts and methods developed in this dissertation.¹⁶⁰ This research should also point out how semio-material practices within the field of architecture have changed in the past two decades as well as how those changes affect the politics of low-income housing.

Contributions to recent debates in social theory and urban studies

The concepts of semio-material practices, political repertoires, and the analytical framework that emphasizes the three moments in the life of the built environment presented here (design, construction, and habitation) incorporate crucial insights from the recent sociological literature on the relationship between meanings and materiality, but they also propose a new lens for looking at this problem. The approach presented in this dissertation is more flexible than any of the current sociological approaches to the problem of the relation between politics, culture, and the built environment, since it is able to shed light on the semiotic practices through which individuals engage with material things, in different realms of social practice. At the same time, it provides a greater degree of conceptual accuracy, drawing on Peirce's distinction between icons, indexes, and symbols to explore how each

¹⁶⁰ Of course, this future research should recognize the growing literature on these topics recently published in Brazil.

leads to different interpretations about material objects. The framework, drawing on the concept of social field, also provides a better explanation about the social situatedness of sets of semio-material practices. Finally, the concept of a political repertoire provides an analytical tool to understand how the built environment becomes pragmatically incorporated in circuits of social practice and in the exercise of power.

Most sociological analyses of the built environment have paid insufficient attention to important moments in the process of the objectification of buildings, particularly to the political and material dynamics that take place during construction. Although this is not necessarily a problem, since these moments can be analytically distinguished, I argue that a broader frame that addresses these three moments leads to a better understanding about the importance of built forms for social life. In this sense, the analysis of semio-material practices of design, construction, and habitation not only leads to more thorough studies of each one of these moments, but it also motivates the formulation of new research questions that address all of them. Analyzing these three moments also helps avoid the analytical trap of allowing particular sets of semio-material practices to dictate the relevant research questions—instead of asking questions that could show how certain practices and codes are partial or aspects of reality. As we have seen, certain semio-material practices actively conceal one or more of these moments—for example, the ideology of design tends to keep from sight the role of labor and construction more broadly and the dynamics of inhabiting built spaces; an analysis that emphasizes the iconization of power tends to steer attention away from important stages in the process of design and construction and toward forms of use and habitation that subvert the iconic interpretation of those structures.

Beyond the specific contribution to the cultural study of the built environment, the theory presented here, and in particular the proposed articulation between Bourdieusian field theory and Peircean semiotics, provides a platform for a constructive articulation of the problem of materiality in some of the most important contemporary literatures on social practice: pragmatism, William Sewell's theory of social structure, and actor-network theory.

This dissertation partakes in the recent revival of pragmatist social theory, addressing the role of materiality in the operation of circuits of practice. This literature has reintroduced critical ideas about the creative nature of social action (Joas 1993, 1997) and provided significant contributions to a theorization of social mechanisms (Gross 2009), collective action (Emirbayer and Goldberg 2005), and meaning making (Tavory and Timmermans 2013). This work complements those efforts, showing how individuals incorporate the built environment in circuits of social practice through creative, abductive processes of material and sign manipulation and also how the built environment itself limits the possible repertoires available for its social engagement. Furthermore, I show that this process of material manipulation is never conducted in a political vacuum: available political repertoires condition the possibilities of articulation between the material and the political, but they may also change as a consequence of that articulation. This is an alternative to the idea that the material (and the built environment in particular) "symbolizes" a predefined social arrangement or that the built environment imposes or strongly conditions forms of interaction or cultural patterns—two common assumptions of the currently available approaches to the analysis of the built environment in cultural sociology.

This combination of the Peircean and Bourdieusian theories also extends William Sewell's influential definition of social structures as semiotic codes of the built environment

(Sewell 2005). Although Sewell points toward the mutual constituency of semiotic processes and the material world, he still separates the two rather drastically, even when trying to explain how they are intertwined as social structures (Steinmetz 2008). The concept of situated semio-material practices and the idea of articulation allows for a better explanation of how those two dimensions become intertwined in circuits of social practice.

In addition, this dissertation takes seriously the challenge presented by the materialist turn in the humanities and social sciences, but it also partakes in a humanist critique of that literature (Jerolmack and Tavory 2014; Vandenberghe 2002) and conceptualizes a sociological mechanism through which nonhumans become causal. The concept of semio-material practices both emphasizes the active, forceful nature of the built environment and also provides a corrective to the extreme version of post-humanist material studies, emphasizing that this causation is commonly associated with social practices of material interpretation and engagement.

This dissertation also challenges the commonly assumed incommensurability between Bourdieu's theory of social practices and the theory of actants advanced by recent studies in science and technology, especially the ones advanced or influenced by the work of Bruno Latour. My empirical analysis of the case of situated practices of articulation and assemblage of programs and actual housing projects shows that this division is both methodologically and theoretically flawed. I do not mean that there are not conceptual and methodological differences in these traditions of the study of social practice, but I argue that it is possible to read both Bourdieu's analysis of situated social practice and actor-network theory's idea of assemblages between humans and nonhuman actants as two variations of a broader pragmatist program of social and cultural analysis, according to which social agency must be understood

as situated processes of oscillation between instances of reproduction and creativity that occur as social agents interact with other individuals and with material objects and landscapes. Beyond that, I believe this work shows that the combination of these traditions sheds new light on the theoretical problem of the integration of materiality into circuits of social practice. It also broadens the methodological perspective on the study of the politics and culture of the built environment. The combination of two methodological strategies in this dissertation—that is, reconstructing social fields and following the actors as they assembled different materials and spaces—attests that they are not mutually exclusive agendas.

This work also contributes to recent discussions of the problem of the political articulation of collectivities, mostly derived from the works of Ernesto Laclau and Chantal Mouffe (Laclau 2014; Laclau and Mouffe 2014; Mouffe 2013) and particularly from Laclau's much debated book on populism (Laclau 2007). This dissertation takes their ideas very seriously, showing that the process of articulating low-income housing in Brazil also constituted a process of partial, tentative articulation of a collectivity: a people. With that, I clarify that this process of collective articulation occurs not only as a consequence of the condensation of a diversity of signifiers in a linguistic sign (as much of their work seems to indicate) but also through the assemblage of material objects that have the capacity to symbolize but also indexically alter patterns of sociability.

In addition to and in closer connection with the empirical case, my analysis of the politics of architecture and on the articulation of low-income housing as a political object sheds light on the literature concerning Brazilian cities and social movements. Although several studies have addressed the emergence of urban social movements in the 1970s and 1980s and their impact on housing policies and on the political culture of the left, no previous

study has provided a historical explanatory account of the articulations between the field of architecture and the political repertoire of the Brazilian left and how that changing articulation affects the production of low-income housing as a material and also a political object.¹⁶¹ This work extends the literature on the history of São Paulo architecture and on the evolution of its environment in two ways: First, my analysis more explicitly reconstructs the field of architecture in the period of analysis, in contrast to the more common strategy of developing in-depth monographs of specific architects or works. Second, although I consider the semiautonomous nature of architecture, my analysis situates the process through which architecture becomes political in a changing social environment.

This dissertation also partakes in debates on housing activism and on the analytical and political question of the “right to the city” in different contexts. A large and important scholarship on this topic has emerged at least since Henri Lefebvre’s critical elaboration of the concept in the late 1960s (Lefebvre 2009) and David Harvey’s influential scholarship on resistance against the capitalist production of urban space (Harvey 2000, 2008, 2013). The issue of the right to the city has also been intellectually and politically scrutinized in the wake of the recent emergence of several forms of urban activism and collective contention that took urban space as a crucial instrument of struggle but also as the final object of organized and diffuse political demands—as exemplified by the recent wave of protests in cities as different as Istanbul, New York, Madrid, São Paulo, and Cairo, among many others. This dissertation contributes to this literature by providing an analytical framework for the study of how professionals of the urban (architects and planners, in particular) engage in these complex political and social processes. This work proposes a new lens on the dynamics of political and semiotic articulation between urban social movements and these professionals, shedding light

¹⁶¹ Arantes (2011) partially addressed this problem, with a focus on the history of *Arquitetura Nova*.

on a range of empirical cases in which those articulations are consequential. Just to cite a few examples, the analytical framework developed here could be deployed—as well as adapted and transformed, to be sure—for comparative studies on the production of low-income housing at times of political transition (for example, after long periods of political dictatorship in Latin American countries or during the transition away from socialism in Eastern Europe in the 1980s and 1990s) or at times of radical questioning of particular built forms and urban arrangements (such as in the debate on the crisis of public housing in the United States in the 1970s and 1980s).

Finally, by looking at the social, political, and cultural dynamics of space making in a metropolis of the Global South, and given the intention of developing a theoretical framework that can be deployed to the analysis of other cases, this study partakes in a collaborative program of decolonizing urban studies (Robinson 2006; Roy 2009) and of advancing an eclectic, critical postcolonial sociology (Bhabra 2009; Bortoluci and Jansen 2013; Go 2012). Most of the literature on urban studies, and urban sociology specifically, has devoted overwhelming attention to the experiences of “central cities”—that is, large metropolises of the Global North. It is very telling that the canonical history of urban studies can be summarized as a succession of paradigmatic cities of the Global North, from the Chicago school of sociology and Walter Benjamin’s critical phenomenology of Paris to the influential debates between Robert Moses and Jane Jacobs on New York and, more recently, the so-called Los Angeles school of urbanism as well as the extensive literature on “global cities.” This dissertation follows Jennifer Robinson’s (2006) call for an open paradigm for the comparative study of cities in which no hierarchy is preestablished—for example, the problematic distinction between “global” and nonglobal cities—and in which no spatial form

is analyzed as a universal model of urban life—such as the “slum” in Mike Davis’s urban dystopia (Davis 2007). I treat São Paulo here as an “ordinary” metropolis. As the Brazilian musician Caetano Veloso wisely asserts, “São Paulo é como o mundo todo,” or “São Paulo is like the whole world”: a complex case of a metropolis that is truly great to think with and to learn from.

APPENDICES

Appendix 1. Architects in the emergent modernist sector (1930-1950) and in the dominant sector (1950-1970)¹⁶²

Name	Year of Birth	#XLC	Special Issues <i>Acrópole</i>
Abelardo de Souza	1908	1	
Abrahão Sanovicz	1934	5	
Adolf Franz Heep	1902	3	
Adolpho Rubio Morales	1924	1	
Alvaro Vital Brazil	1909	1	
Antonio Bergamin	1938	1	
Ariel Rubinstein	1937	1	
Arnaldo Martino	1940	2	
Artur Licio Pontual	1935	1	
Bernardo Rudofsky	1905	1	
Candido Malta Campos Filho	1936	1	352 (1968) (with Manoel Correa and Siegbert Zanettini)
Carlos Barjas Millan	1927	4	317 (1965) and 332 (1966)
Carlos Bratke	1942	1	
Carlos Lemos	1925	1	
Charles Bosworth	1914	1	
David Libeskind	1928	1	
David Ottoni	1927	1	
Decio Tozzi	1936	4	
Eduardo Corona	1921	1	
Eduardo de Almeida	1933	1	
Eduardo Kneese de Mello	1906	1	
Eduardo Longo	1942	2	388 (1971) and 389 (1971)
Ernest Robert Carvalho Mange	1922	1	
Eurico Prado Lopes	1939	1	
Fábio Penteado	1929	2	
Francisco Segnini Jr	1943	1	
Giancarlo Palanti	1906	1	

¹⁶² Partially based on Xavier et al (1983). A few important architects of the period are not in this list, but they worked as co-designers of relevant projects, such as Roberto Aflalo and Giancarlo Gasperini (with Plinio Croce) and Carlos Cascaldi (with João Vilanova Artigas). #XLC: Number of works published in Xavier et al (1983).

Name	Year of Birth	#XLC	Special Issues <i>Acrópole</i>
Gláycion Mota Melo	1941	1	
Gregori Warchavchik	1896	2	
Helio Duarte	1906	1	
Helio Pasta	1927	1	
Henrique Mindlin	1911	1	
Icaro de Castro Mello	1913	2	
Jacques Pilon	1905	4	
Jeronimo Bonilha Esteves	1933	4	
João Carlos Cauduro	1935	1	390 (1971) and 391 (1971) (with Ludovico Martino)
João Vilanova Artigas	1915	2	377 (1970)
João Walter Toscano	1933	1	338 (1967)
Joaquim Guedes	1932	5	347 (1968)
Jon Maitrejean	1929	1	
Jorge Bonfim	1934	1	
Jorge Caron	1936	0	385 (1971)
Jorge Wilhelm	1928	5	
Jose Eduardo de Assis Lefevre	1943	2	
Julio de Abreu Junior	1895	1	
Julio Jose Franco Neves	1932	1	
Julio Roberto Katinski	1932	1	
Lina Bo Bardi	1914	3	
Lucjan Korngold	1987	1	
Marcello Accioly Fragelli	1928	6	
Marcelo Roberto	1908	1	
Marco Zanuso	1916	1	
Marcos de Azevedo Acayaba	1944	1	
Mauricio Roberto	1921	1	
Miguel Squilero	1951	1	
Nadir Curi Mezerani	1939	1	
Oscar Niemeyer	1907	6	362 (1969)
Oswaldo Arthur Bratke	1907	2	326 (1966)
Paulo Case	1931	1	
Paulo de Mello Bastos	1936	5	
Paulo Mendes da Rocha	1928	10	342 (1967) and 343 (1967)
Paulo Sergio Souza e Silva	1934	1	
Pedro Paulo de Melo Saraiva	1933	5	
Peter Pfisterer	?	1	
Plinio Croce	1921	12	
Raimundo Nonato Rocha Diniz	1928	1	

Name	Year of Birth	#XLC	Special Issues <i>Acrópole</i>
Rino Levi	1901	12	
Roberto Cerqueira Cesar	1917	3	
Roberto Ezell Mac fadden	1944	1	
Roberto Loeb	1941	2	
Rodrigo Lefevre	1938	1	319 (1965) (with Sérgio Ferro and Flavio Império)
Roger Zmekohl	1928	1	
Ruy Ohtake	1938	9	386 (1971)
Salvador Candia	1924	1	
Samuel Szpigel	1936	1	
Sérgio Bernardes	1919	0	391 (1963)
Sérgio Ferro	1938	1	
Sergio Ficher	1946	1	
Sergio Pileggi	1939	2	
Sergio Teperman	1937	1	
Setsuo Kamada	1935	1	
Siegbert Zanettini	1934	4	
Sylvio Barros Sawaya	1942	1	
Telesforo Cristofani	1929	2	
Ubirajara Ribeiro	1930	1	
Ubyrajara Giglioli	1932	5	
Wolfgang Schoeden	1924	1	
Zenon Lotufo	1911	1	

Appendix 2. Representative works from the emergent modernist sector (1927-1950) and the dominant sector (1950-1977)¹⁶³

Period	Year	Architect 1	Architect 2	Building	Address	Type
27-39	1927	Julio de Abreu Junior		Edifício de Apartamentos	Avenida Angélica, 172, São Paulo	Multifamily Housing
27-39	1927	Gregori Warchavchik		Casa Modernista	Rua Itápolis, 961, São Paulo	Single Family House
27-39	1930	Gregori Warchavchik		Residência Luiz da Silva Prado	Rua Bahia, 1126, São Paulo	Single Family House
27-39	1935	Álvaro Vital Brasil	Adhemar Marinho	Edifício Esther	Praça da República, 76, São Paulo	Multifamily Housing
27-39	1935	Jacques Pilon		Biblioteca Municipal Mário de Andrade	Biblioteca Mário de Andrade, R. da Consolação, São Paulo	School/Cultural Center
27-39	1939	Bernardo Rudofsky		Residência Virgílio Frontini	Rua Monte Alegre, 947, São Paulo	Single Family House
41-50	1941	Rino Levi		Cine Ipiranga e Hotel Excelsior	Avenida Ipiranga, 786, São Paulo	School/Cultural Center
41-50	1941	Marcelo Roberto	Milton Roberto	Edifício Anchieta	Av. Paulista, 2584, São Paulo	Multifamily Housing
41-50	1941	Rino Levi		Instituto "Sedes Sapientiae"	Rua Marques de Paranaguá, 111, São Paulo	School/Cultural Center
41-50	1942	João Vilanova Artigas		Residência Rio Branco Paranhos	Rua Heitor de Moraes, 120, São Paulo	Single Family House
41-50	1943	Peter Pfisterer		Escola de Enfermagem da USP	Rua Eneias de Carvalho Aguiar, 420, São Paulo	School/Cultural Center
41-50	1944	Rino Levi	Roberto Cerqueira César	Edifício Prudência	Avenida Higienópolis, 265, São Paulo	Multifamily Housing
41-50	1944	Rino Levi		Residência do Arquiteto	Rua Bélgica, 198 - Jardim Europa, São Paulo	Single Family House
41-50	1946	Lucjan Korngold		Edifício CBI-Esplanada	Ladeira Esplanada, 2-98 - República- São Paulo	Commercial Building
41-50	1946	Jacques Pilon	Adolf Franz Heep	Edifício O Estado de São Paulo	Rua Major Quedinho, 28, São Paulo	Commercial Building
41-50	1946	João Vilanova Artigas	Carlos Cascaldi	Edifício Louveira	Praça Vilaboim, 144, São Paulo	Multifamily Housing
41-50	1947	Roberto Cerqueira César	Zenon Lotufo	Edifício Sede do IAB	Rua Bento Freitas 306, São Paulo	Commercial Building
41-50	1947	Rino Levi	Roberto Cerqueira César	Hospital Central do Câncer	Rua Professor Antonio Prudente 211, São Paulo	Service Building
41-50	1948	Ícaro de Castro Mello		Piscina Coberta	Rua Dona Germaine Burchard, 451, São Paulo	Park/Recreation/Sports Facility
41-50	1949	Lina Bo Bardi		Residência da Arquiteta	Rua General Almerio de Moura, 200, São Paulo	Single Family House
41-50	1949	João Vilanova Artigas		Residência do Arquiteto	Rua Barão de Jaceguai, 1151 - Campo Belo, São Paulo	Single Family House
41-50	1950	Oswaldo Arthur Bratke		Edifício ABC	Rua Major Sertório, 92, São Paulo	Commercial Building
41-50	1950	Oscar Niemeyer	Hélio Uchoa	Fabrica Duchon	Rodovia presidente Dutra, km 4,5, São Paulo	Industrial Building
51-60	1951	Oscar Niemeyer	Zenon Lotufo et al	Parque Ibirapuera	Parque do Ibirapuera	Park/Recreation/Sports Facility
51-60	1951	Oscar Niemeyer	Zenon Lotufo et al	Palácio da Indústria (Prédio da Bienal)	Avenida Pedro Álvares Cabral, Portão 3, Parque Ibirapuera, São Paulo	School/Cultural Center
51-60	1951	Oscar Niemeyer	Zenon Lotufo et al	Palácio das Nações e dos Estados	Avenida Pedro Álvares Cabral, Portão 10, Parque Ibirapuera, São Paulo	School/Cultural Center
51-60	1951	Oscar Niemeyer	Zenon Lotufo et al	Palácio das Artes	Av. Pedro Álvares Cabral, 5154 - Parque Ibirapuera, São Paulo	School/Cultural Center
51-60	1951	Oscar Niemeyer		Edifício Copan	Avenida Ipiranga, 200, São Paulo	Multifamily Housing
51-60	1951	Rino Levi	Roberto Cerqueira César et al	Residência Milton Guper	Rua Nicarágua, 254 - Jardim América, São Paulo	Single Family House
51-60	1952	Giancarlo Palanti		Edifício Conde de Prates	Rua Libero Badaró, 193 - Centro, São Paulo	Multifamily Housing
51-60	1952	Helio Duarte	Ernest Robert Carvalho Mange	Escola têxtil do Senai	Rua Coronel Francisco Anaro, 207, São Paulo	School/Cultural Center

¹⁶³ Based on Xavier et al (1983).

Period	Year	Architect 1	Architect 2	Building	Address	Type
51-60	1952	João Vilanova Artigas	Carlos Cascaldi	Estádio do São Paulo Futebol Clube	Praça Roberto Gomes Pedrosa, São Paulo	Park/Recreation/Sports Facility
51-60	1953	Adolf Franz Heep		Igreja São Domingos	Rua Caiubi, 164, Perdizes, São Paulo	Religious Building
51-60	1953	Adolf Franz Heep		Edifício Lausanne	Avenida Higienópolis, 101, São Paulo	Multifamily Housing/Commercial Building
51-60	1953	Abelardo de Souza		Edifício Nações Unidas	Avenida Paulista, 620, São Paulo	Multifamily Housing
51-60	1953	Plínio Crosse	Roberto Aflalo et al	Edifício João Ramalho	Rua João Ramalho, 325, São Paulo	Multifamily Housing
51-60	1955	David Libeskind		Edifício Conjunto Nacional	Avenida Paulista, 2073, São Paulo	Multifamily Housing/Commercial Building
51-60	1956	Adolf Franz Heep		Edifício Itália	Avenida Ipiranga, 344, São Paulo	Commercial Building
51-60	1956	Jacques Pilon	Giancarlo Gasperini	Edifícios Pauliceia e São Carlos do Pinhal	Avenida Paulista, 960, São Paulo	Multifamily Housing
51-60	1956	Jacques Pilon	Giancarlo Gasperini	Edifício Barão de Iguape	Praça do Patriarca, São Paulo	Commercial Building
51-60	1956	João Vilanova Artigas	Carlos Cascaldi	Residência José Taques Bittencourt	Rua Votuporanga, 275, São Paulo	Single Family House
51-60	1956	Rino Levi	Roberto Cerqueira César et al	Laboratório Paulista de Biologia	Rua Maria Cândida, 1813, Vila Guilherme	School/Cultural Center
51-60	1956	Oswaldo Arthur Bratke		Residência Benjamin Fleider	Rua Suécia, 452, São Paulo	Single Family House
51-60	1956	Marco Zanuso		Fabrica Olivetti	Rodovia Presidente Dutra, km 230, Guarulhos	Industrial Building
51-60	1957	Paulo Mendes da Rocha		Ginásio Clube Atlético Paulistano	Rua Colômbia, 77 - Jardim América, São Paulo	Park/Recreation/Sports Facility
51-60	1957	Lina Bo Bardi		Museu de Arte de São Paulo	Avenida Paulista, 1587, São Paulo	School/Cultural Center
51-60	1958	João Vilanova Artigas	Carlos Cascaldi	Residência Rubens Mendonça	Rua Guaçu, 176, São Paulo	Single Family House
51-60	1958	Joaquim Guedes	Rua Sílvia Portugal, 193	Residência Antonio Carlos Cunha Lima	Rua Sílvia Portugal, 193, São Paulo	Single Family House
51-60	1958	Rino Levi	Roberto Cerqueira César et al	Residência Castor Delgado Perez	Avenida Nove de Julho, 5170, São Paulo	Single Family House
51-60	1959	Pedro Paulo de Melo Saraiva	Miguel Juliano e Silva	Edifício V Avenida	Avenida Paulista, 726, São Paulo	Commercial Building
51-60	1959	Henrique Mindlin	Giancarlo Palanti	Edifício Sede do Bank of London & South América LTD	Rua 15 de Novembro, 111 - São Paulo	Commercial Building
51-60	1960	Rino Levi	Roberto Cerqueira César et al	Edifício Galeria R Monteiro	Rua 24 de Maio, 77, São Paulo	Commercial Building
51-60	1960	Salvador Candia	Giancarlo Gasperini	Conjunto Metropolitano	Praça Dom José Gaspar, São Paulo	Commercial Building
51-60	1960	Carlos Barjas Millan		Residência Roberto Millan	Rua Alberto Faria, 660 - Alto dos Pinheiros, São Paulo	Single Family House
51-60	1960	Carlos Barjas Millan		Residência Nadir de Oliveira	R. das Açucenas, 10 - Cidade Jardim, São Paulo - SP	Single Family House
61-68	1961	Adolpho Rubio Morales	Ricardo Sievers et al	Assembleia Legislativa do Estado de São Paulo	Avenida Pedro Álvares Cabral, 201, São Paulo	Civic Building
61-68	1961	Carlos Barjas Millan		Clube Paineiras do Morumbi	Avenida Dr. Alberto Penteado, 605, São Paulo	Park/Recreation/Sports Facility
61-68	1961	Rino Levi	Roberto Cerqueira César et al	Edifício Plavinil-Elclor	Alameda Santos, 2101, São Paulo	Commercial Building
61-68	1961	Roger Zmekohl		Edifício Wilton Paes de Almeida	Rua Antonio de Godoy, 11 - Centro, São Paulo	Commercial Building
61-68	1961	Ícaro de Castro Mello	Helio Pasta	Estádio Olímpico da USP	Prof. Rubião Meira, 61 - Cidade Universitária - São Paulo, SP	Park/Recreation/Sports Facility
61-68	1961	Eduardo Kneese de Mello	Joel Ramalho et al	Alojamento de Estudantes da USP	Avenida Professor Mello Moraes, 1235 - Cidade Universitária, São Paulo	Multifamily Housing
61-68	1961	João Vilanova Artigas	Carlos Cascaldi	Faculdade de Arquitetura e Urbanismo	Rua do Lago, 876 - Butantã, São Paulo - SP	School/Cultural Center
61-68	1961	Eduardo Corona		Departamentos de História e	Av. Prof. Luciano Gualberto, 315 - Cidade Universitária,	School/Cultural Center

Period	Year	Architect 1	Architect 2	Building	Address	Type
				Geografia	São Paulo	
61-68	1961	João Vilanova Artigas	Carlos Cascaldi	EEPSG Conselheiro Crispiniano	Avenida Arminda de Lima, 57 - Guarulhos	School/Cultural Center
61-68	1961	João Vilanova Artigas	Carlos Cascaldi	EEPSG 31 de Março	Avenida Uitinga, 1133 - Santo André, SP	School/Cultural Center
61-68	1961	João Vilanova Artigas	Carlos Cascaldi	Vestiários do São Paulo Futebol Clube	Avenida Presidente Giovanni Gronchi, 1546 - São Paulo	Park/Recreation/Sports Facility
61-68	1961	João Vilanova Artigas	Carlos Cascaldi	Garagem de Barcos do Santa Paula late Clube	Avenida Robert Kennedy, 4901 - Interlagos, São Paulo	Park/Recreation/Sports Facility
61-68	1961	Carlos Lemos	Eduardo Corona	Residência Luis Eduardo Magalhães Gouvea	Rua João Moura, 1723, São Paulo	Single Family House
61-68	1961	Sergio Ferro		Residência Boris Fausto	Rua Gaspar Moreira, 309, São Paulo	Single Family House
61-68	1962	Carlos Barjas Millan		Residência Antonio D'Elboux	Rua Ministro Godoy, 1610, São Paulo	Single Family House
61-68	1962	Marcello Accioly Fragelli		Edifício Rossi-Leste	Rua Rodovalho Júnior, 476, São Paulo	Multifamily Housing
61-68	1962	Rino Levi	Roberto Cerqueira César et al	Banco Sul Americano do Brasil SA	Avenida Paulista, 1938, São Paulo	Commercial Building
61-68	1963	Zenon Lotufo	Ubirajara Ribeiro	Edifício Sede de Sindicato	Rua Tomas Gonzaga, 50, São Paulo	Commercial Building
61-68	1963	Jeronimo Bonilha Esteves	Israel Sancovski	Capela da Colônia Francesa	Rua Mairinque, 256 - Vila Mariana, São Paulo	Religious Building
61-68	1964	Fábio Penteado	Alfredo Paesani et al	Sede Social do Clube Harmonia	Rua Canada, 658, São Paulo	Park/Recreation/Sports Facility
61-68	1964	Paulo Mendes da Rocha	João Eduardo de Gennaro	Edifício Gaimbe	Rua Haddock Lobo, 1447, São Paulo	Multifamily Housing
61-68	1964	Paulo Mendes da Rocha	João Eduardo de Gennaro	Residências Paulo Mendes da Rocha e L. G Cruz Secco	Rua Engenheiro João de Ulhoa Cintra, 26 - Butantã, São Paulo	Single Family House
61-68	1965	Rino Levi	Roberto Cerqueira César et al	Paço Municipal de Santo André	Praça IV Centenário, Santo André, SP	Civic Building
61-68	1965	Jorge Bonfim	Mauro Zuccon et al	Paço Municipal de São Bernardo do Campo	Praça Samuel Sabatini, São Bernardo do Campo	Civic Building
61-68	1965	Paulo de Mello Bastos	Leo Bonfim Jr et al	Quarteis Gerais do II Exército	Rua Sargento Mario Kozel Filho, 222 - Ibirapuera, São Paulo	Civic Building
61-68	1965	Ernest Robert Carvalho Manje	Ariaki Kato	Banco América do Sul SA	Avenida Brigadeiro Luiz Antonio, 2030 - São Paulo	Commercial Building
61-68	1966	Ubyrajara Giglioli		EEPG Luiza Collaço Queiroz Fonseca	Rua Vicente Moreira da Rocha, 44, São Bernardo do Campo	School/Cultural Center
61-68	1966	Paulo de Mello Bastos	Leo Bonfim Jr	Corpo de Bombeiros e Batalhão Policial	Avenida Kennedy, 67, São Bernardo do Campo	Service Building
61-68	1966	Paulo de Mello Bastos	Leo Bonfim Jr	EEPG Mario Martins de Almeida	Rua São João, 169, São Bernardo do Campo	School/Cultural Center
61-68	1966	Candido Malta Campos Filho	Manoel Kosciuszko et al	Residência Leonardo Sacco	Alameda Uapês, 155, Planalto Paulista, São Paulo	Single Family House
61-68	1966	Joaquim Guedes		Residência Waldo Perseu Pereira	Rua Carangola, 447 - Butantã, São Paulo	Single Family House
61-68	1967	João Vilanova Artigas		Residência Elza Berquó	Rua Paulo Roberto Paes de Almeida, 51, São Paulo	Single Family House
61-68	1967	Decio Tozzi	Luiz Carlos Ramos	EEPG Jardim Ipê	Estrada dos Casa, 2651, São Bernardo do Campo	School/Cultural Center
61-68	1967	João Vilanova Artigas	Fabio Penteado et al	Conjunto Residencial Zezinho Magalhaes Prado	Rodovia Presidente Dutra, km 73, Guarulhos	Multifamily Housing
61-68	1967	João Vilanova Artigas	Fabio Penteado et al	Unidade Habitacional do Parque Cecap	Rodovia Presidente Dutra, km 73, Guarulhos	Multifamily Housing
61-68	1967	Jorge Wilhelm	Miguel Juliano e Silva	Palácio de Exposições do Parque Anhembi	Avenida Olavo Fontoura, 1208 - Santana, São Paulo	School/Cultural Center
61-68	1967	Jorge Wilhelm	Miguel Juliano e Silva	Palácio de Convenções do Parque Anhembi	Avenida Olavo Fontoura, 1209 - Santana, São Paulo	School/Cultural Center
61-68	1967	Paulo Sergio Souza e Silva		Residência do Arquiteto	Rua Desembargador Joaquim Barbosa de	Single Family House

Period	Year	Architect 1	Architect 2	Building	Address	Type
					Almeida, 96, São Paulo	
61-68	1967	Paulo Mendes da Rocha	João Eduardo de Gennaro	EEPG Gofredo Teixeira da Silva Telles	Rua Giacinto Tognato, 1560 - São Bernardo do Campo	School/Cultural Center
61-68	1967	Ubyrajara Giglioli		EEPSG Fausto Cardoso Figueira de Mello	Rua Francisco Alves, 580, São Bernardo do Campo	School/Cultural Center
61-68	1968	João Vilanova Artigas	Fabio Penteado	Escola Senai Umberto Reis Costa	R. Aracati Mirim, 115 - Vila Alpina, São Paulo - SP	School/Cultural Center
61-68	1968	Telesforo Cristofani		Edifício Giselle	Avenida Nove de Julho, 5713, São Paulo	Multifamily Housing
61-68	1968	Eduardo de Almeida		Edifícios Gemini I e II	Rua Grauna, 379 - Indianapolis, São Paulo	Multifamily Housing
61-68	1968	Décio Tossi		Conjunto Poliesportivo	Rua Armando Italo Setti, 815 - São Bernardo do Campo	Park/Recreation/Sports Facility
61-68	1968	Siegbert Zanettini		Maternidade e Posto de Saúde	Avenida Deputado Emilio Carlos, 3100, Vila Nova Cachoeirinha	Service Building
61-68	1968	Marcello Aciolly Fragelli		Estação Ponte Pequena do Metrô (Atual Armênia)	Rua Pedro Vicente, 47 - Bom Retiro, São Paulo	Transportation Infrastructure
61-68	1968	Marcello Aciolly Fragelli		Estação Tietê do Metro	Avenida Cruzeiro do Sul, 1777, São Paulo	Transportation Infrastructure
61-68	1968	Marcello Aciolly Fragelli		Estação Santana do Metro	Avenida Cruzeiro do Sul, 3173, São Paulo	Transportation Infrastructure
61-68	1968	Marcello Aciolly Fragelli		Estação Liberdade do Metro	Praça da Liberdade, São Paulo	Transportation Infrastructure
61-68	1968	Ubyrajara Giglioli		Hospital Militar de São Paulo	Avenida Nova Cantareira, 3531, São Paulo	Service Building
61-68	1968	Paulo Mendes da Rocha		Residência Mário Macete	Rua Manuel Maria Tourinho, 701, São Paulo	Single Family House
61-68	1968	Artur Licio Pontual	Ennes Silveira Mello	Residência Albert Bildner	Rua general Almerio de Moura, 51, São Paulo	Single Family House
61-68	1968	Ruy Ohtake		Residência Tomie Ohtake	Rua Antonio de Macedo Soares, 1800, São Paulo	Single Family House
61-68	1968	João Vilanova Artigas		Residência Manoel Mendes André	Rua Coronel Artur de Godio, 185, São Paulo	Single Family House
61-68	1968	João Vilanova Artigas		Residência Telmo Porto	Rua Dr. Costa Jr, 230, São Paulo	Single Family House
61-68	1968	João Walter Toscano		Residência do Arquiteto	Rua Orós, 64, São Paulo	Single Family House
61-68	1968	Paulo de Mello Bastos		Sede Social do Clube Paneiras do Morumbi	Avenida Dr. Alberto Penteado, 606, São Paulo	Park/Recreation/Sports Facility
61-68	1968	Paulo Mendes da Rocha		EESG São Paulo	Rua São Joaquim 320, Liberdade, São Paulo	School/Cultural Center
61-68	1968	Antonio Bergamin	Arnaldo Martino et al	Secretaria da Agricultura do Estado de São Paulo	Avenida Miguel Stefano, 3900, São Paulo	Civic Building
61-68	1968	Charles Bosworth		Edifício-Sede da Ericson do Brasil SA	Avenida Morvan Dias de Figueiredo, 5724 - Vila Guilherme, São Paulo	Commercial Building
61-68	1968	R N Rocha Diniz	Sidonio Porto	Edifício-Sede da CBPO	Avenida Paulista, 2240, São Paulo	Commercial Building
61-68	1968	Abraão Sanovicz		Residência Zélia Deri Twiaschor	Rua Osvaldo leite Ribeiro, 276, São Paulo	Single Family House
69-77	1969	Roberto Cerqueira Cesar	Luís Roberto Carvalho Franco	Edifício Sede da Fiesp-Ciesp-Sesi	Avenida Paulista, 1313, São Paulo	Commercial Building
69-77	1969	Sylvio Barros Sawaya	Edmilson Tinoco Jr	Residência João Marino	Avenida Lopes de Azevedo, 265, São Paulo	Single Family House
69-77	1970	Maurício Roberto	Márcio Roberto	Centro de Processamento de Dados do Banco do Brasil	Av. das Nações Unidas, 18595 - São Paulo	Commercial Building
69-77	1970	Plínio Croce	Roberto Aflalo et al	Edifício Sede da IBM	Rua Tutoia 1157, São Paulo	Commercial Building
69-77	1970	Telesforo Cristofani		Edifício Sede da Telesp	Rua Martiniano de Carvalho, 743 - São Paulo	Commercial Building
69-77	1970	Abrahaão Sanovicz		Edifício Modular Beta	Avenida Divino Salvador, 863, São Paulo	Multifamily Housing
69-77	1970	Francisco Segnini Jr	Joaquim Claudio Barreto	Igreja Mãe do Salvador	Avenida professor Frederico Herman Jr, 105, São Paulo	Religious Building
69-77	1970	Ruy Ohtake		Residência Nadir	Rua Sanharo, 400, São	Single Family House

Period	Year	Architect 1	Architect 2	Building	Address	Type
				Zacharias	Paulo	
69-77	1970	Rodrigo Lefevre		Residência Dino Zamataro	Rua Hilario Magro Jr, 70, São Paulo	Single Family House
69-77	1970	Plínio Croce	Roberto Aflalo et al	Colégio Visconde de Porto Seguro	Rua Clementine Brenne, 2 - São Paulo	School/Cultural Center
69-77	1970	Abraão Sanovicz		Conjunto Residencial	Rua Bolívia, Jardim Prudência, São Paulo	Multifamily Housing
69-77	1970	Ariel Rubinstein	J M Charpentier	Industria Telemecanique SA	Av. das Nações Unidas, 45510 - São Paulo	Industrial Building
69-77	1970	Ruy Ohtake		Laboratórios Farmacêuticos Ache	Rodovia Presidente Dutra, km 227, Guarulhos	Industrial Building
69-77	1970	Eduardo Longo		Residência Manoel Pires da Costa	Rua República Dominicana, 515, São Paulo	Single Family House
69-77	1970	Eduardo Longo		Residência Afonso Hennel	Rua Silveira Sampaio, 805, São Paulo	Single Family House
69-77	1971	Paulo Mendes da Rocha		Residência Fernando Millan	Avenida Circular do Bosque, 680, São Paulo	Single Family House
69-77	1971	Joaquim Guedes		Residência do Arquiteto	Rua professor Luciano Gualberto, 235, Morumbi, São Paulo	Single Family House
69-77	1971	Plínio Croce	Roberto Aflalo et al	Edifício Parque Iguatemi	Avenida Brigadeiro Faria Lima, 2092 São Paulo	Commercial Building
69-77	1971	João Vilanova Artigas		Centro Educacional Assistencial Recreativo da Vila Alpina	Rua João Fernandes, 318 - Santo André	School/Cultural Center
69-77	1971	Ruy Ohtake		Residência José Antonio Filippelli	Rua Antonio Appel Neto, 35, São Paulo	Single Family House
69-77	1971	Paulo de Mello Bastos		Residência Arthur Affonso de Souza	Rua Chilon, 344, São Paulo	Single Family House
69-77	1971	Jon Maitrejean		Residência do Arquiteto	Rua Chiquinha Rodrigues, 89, São Paulo	Single Family House
69-77	1971	Siegbert Zanettini		Residência Paulo Amaral Gurgel	Rua Capepuxis, 442 - São Paulo	Single Family House
69-77	1971	Ubirajara Ribeiro	Walter Maffei	Centro de Manutenção e Escola para linha de transmissão	Avenida Nossa Senhora do Ó, 382, São Paulo	Service Building
69-77	1971	Roberto Loeb	Flavio Mindlin Guimaraes et al	Centro Administrativo do Unibanco	Rodovia Raposo Tavares, km 16,5 - Butantã - São Paulo - SP	Commercial Building
69-77	1971	Plínio Croce	Roberto Aflalo et al	Tribunal de Contas do Município de São Paulo	Rua Professor Ascendido Reis, 1130, São Paulo	School/Cultural Center
69-77	1972	Paulo Mendes da Rocha		Núcleo de Educação Infantil do Jardim Calux	Rua Cabral da Câmara, 1 - São Bernardo do Campo	School/Cultural Center
69-77	1972	Jorge Wilhelm	José Magalhães Jr	Edifício Torre do Espigão	Rua Ministro Rocha Azevedo, 72 - São Paulo	Commercial Building
69-77	1972	Paulo Mendes da Rocha		Residência James Francis King	Rua Angra dos Reis, 300 - Chaçara Flora, São Paulo-SP	Single Family House
69-77	1972	Ruy Ohtake		Edifício Quatiara	Avenida Caxingui, 165, São Paulo	Multifamily Housing
69-77	1972	João Vilanova Artigas		Residência Juvenal Juvêncio	Rua Pira Pó, 157, São Paulo	Single Family House
69-77	1972	João Vilanova Artigas		Passarela Para Pedestres	R. Cel. Alfredo Fláquer, 850 - Santo André-SP	Transportation Infrastructure
69-77	1972	Plínio Croce	Roberto Aflalo et al	Centro de Controle Operacional do Metro	Rua Vergueiro, 1200, São Paulo	Service Building
69-77	1972	Plínio Croce	Roberto Aflalo et al	Edifício Barros Loureiro	Avenida 9 de Julho 5227 - São Paulo	Commercial Building
69-77	1972	Jeronimo Bonilha Esteves	Israel Sancovski et al	Terminal de Ônibus do Tabaqueara	Avenida Engenheiro Armando de Arruda Pereira, 2063 - São Paulo	Transportation Infrastructure
69-77	1972	Sergio Pelego	Euclides de Oliveira	Centro de Desenvolvimento Profissional do Senac	Avenida Francisco Matarazzo, 249 São Paulo	School/Cultural Center
69-77	1972	Wolfgang Schoeden	Gregorio Zolko	Industrias Amortex	Rua Arnaldo Magniccaro Jurubatuba	Industrial Building
69-77	1972	Marcello Aciolly Fragelli		Residência Ernesto D'Orsi	Rua Comendador Buchara Moherdau, 450 São Paulo	Single Family House
69-77	1972	José Eduardo de		Residência do	Rua Berlioz, 541, São Paulo	Single Family House

Period	Year	Architect 1	Architect 2	Building	Address	Type
		Assis Lefevre		Arquiteto		
69-77	1972	Arnaldo Martino	Gisela Visconti	Residência Maria Luiza França	Avenida Dr. Alberto Penteado, 640, São Paulo	Single Family House
69-77	1972	Ruy Ohtake		Residência Paulo Bettencourt Filho	Rua Dom Henrique, 507, São Paulo	Single Family House
69-77	1972	Glaycon Mota Melo		EMEI Padre Manoel da Nobrega	Avenida padre Anchieta, 835 - São Bernardo do Campo	School/Cultural Center
69-77	1973	Fabio Penteado	Teru Tamaki	Hospital Escola Julio de Mesquita Filho	Rua José Gomes Falcão, 1 - São Paulo	Service Building
69-77	1973	Decio Tozzi		Residência Helio Tozzi	Maria Vidal, 73, São Paulo	Single Family House
69-77	1973	Decio Tozzi		Residência Antonio Teófilo de Andrade Orta	Rua Manuel Marques Simões, 70, São Paulo	Single Family House
69-77	1973	Pedro Paulo de Melo Saraiva	Sergio Fiche et al	Residência Kurt Wissmann	Rua Espanha 305, São Paulo	Single Family House
69-77	1973	Joaquim Guedes		Residência Beatriz Kerti Mangabeira Albernaz	Rua Grécia, 409, São Paulo	Single Family House
69-77	1973	Jorge Wilhelm	Sílvio Sawaya et al	Conjunto Assistencial e Esportivo do Sesi	Rua Carlos Weber, 835, São Paulo	Park/Recreation/Sports Facility
69-77	1973	Paulo Case	Luiz Acciolly et al	Edifício Asahi	Avenida Paulista, 1274, São Paulo	Commercial Building
69-77	1973	David Ottoni	Dacio Ottoni	Edifício Sede do Sindicato de Hotéis e Similares de São Paulo	Largo do Arouche, 290, São Paulo	Commercial Building
69-77	1973	Arnaldo Martino		Edifício Josepha Daccache	Rua da Consolação, 439, São Paulo	Commercial Building
69-77	1973	Plínio Croce	Roberto Aflalo et al	Edifício Saint James Park	Avenida Cidade Jardim 377, São Paulo	Commercial Building
69-77	1973	Pedro Paulo de Melo Saraiva	Sergio Ficher et al	Edifício Capitânea	Avenida Brigadeiro Faria Lima, 2894 São Paulo	Commercial Building
69-77	1973	Roberto Cerqueira Cesar	Luís Roberto Carvalho Franco et al	Colégio Miguel de Cervantes	Avenida Jorge João Sadã, 905, São Paulo	School/Cultural Center
69-77	1973	Jeronimo Bonilha Esteves	Israel Sancovski	Edifício Morumbi	Rua George Eastman, 160, São Paulo	Commercial Building
69-77	1973	Plínio Croce	Roberto Aflalo et al	EEPG Prof. Nicolau Novaes Barros	Rua Haste Motomura, São Paulo	School/Cultural Center
69-77	1973	Plínio Croce	Roberto Aflalo et al	Residência J N A	Rua Escócia, 51 - São Paulo	Single Family House
69-77	1973	Eduardo de Almeida		Residência Jean Sigais	Rua David Pimentel, 84, São Paulo	Single Family House
69-77	1973	Marcos de Azevedo Acayaba		Residência do Arquiteto	Av. das Magnólias, 70 - Cidade Jardim, São Paulo-SP	Single Family House
69-77	1973	Júlio Roberto Katinski	Helio Pasta et al	Subestação Rebaixadora de Energia da Eletropaulo	Alameda Gillette, 801, São Paulo	Service Building
69-77	1974	Siegbert Zanettini		Industria de Equipamentos Hércules	Rua João de Goes, 2600, Jandira	Industrial Building
69-77	1974	Júlio José Franco neves	Luigi Villavecchia	Terminal Intermunicipal do Jabaquara	Avenida Engenheiro Armando de Arruda Ferreira, 16 - São Paulo	Transportation Infrastructure
69-77	1974	Pedro Paulo de Melo Saraiva	Sergio Ficher et al	Edifício Acal	Rua professor Arthur Ramos, 152 - São Paulo	Commercial Building
69-77	1974	Abrahão Sanovicz		Residência André Meches Filho	R. Murupi, 250 - Alto de Pinheiros, São Paulo - SP	Single Family House
69-77	1975	Setsuo Kamada	Pedro Paulo de Mello Saraiva	Edifício Sede da Prodesp	Rua Agueda Gonçalves, 240, São Paulo	Service Building
69-77	1975	Eduardo de Almeida		Residência do Arquiteto	Rua Carangola, 382, São Paulo	Single Family House
69-77	1975	Joaquim Guedes		Residência Fabrizio Beer	Rua Jacupiranga, 50 São Paulo	Single Family House
69-77	1975	Ubyrajara Giglioli		EEPG do Jardim Santo Afonso	Rua Ivinhema, 150 - Guarulhos	School/Cultural Center
69-77	1975	Ubyrajara Giglioli		EEPSG Fausto Cardoso Figueira de Mello (complementação)	Rua Francisco Alves, 580, São Bernardo do Campo	School/Cultural Center

Period	Year	Architect 1	Architect 2	Building	Address	Type
69-77	1975	Sergio Pelego	Euclides de Oliveira	Sede Regional e Centro de Triagem da ECT	Avenida Gastão Vidigal, 1170 - Vila Leopoldina, São Paulo	Service Building
69-77	1975	Jorge Wilhelm	Silvio Sawaya et al	Edifício Sede da Fapesp	Rua Pio XI, 1500, São Paulo	Commercial Building
69-77	1975	Ruy Ohtake		Agencia Butantã do Banco do Estado de São Paulo	Avenida Professor Francisco Morato, 479 - São Paulo	Service Building
69-77	1975	Siegbert Zanettini		Agencia Tutoia do Banco do Estado de São Paulo	Rua Tutoia, 505 - São Paulo	Service Building
69-77	1975	Pedro Paulo de Melo Saraiva	Sergio Ficher et al	Agencia Pamplona do banco do Estado de São Paulo	Rua Pamplona, 992, São Paulo	Service Building
69-77	1975	João Carlos Cauduro	Ludovico Martino	Agencia Albuquerque Lins do Banco do Estado de São Paulo	Rua Albuquerque Lins, 878, São Paulo	Service Building
69-77	1975	Paulo Mendes da Rocha		Residência Antonio Junqueira de Azevedo	Rua Guaonés, 144, São Paulo	Single Family House
69-77	1975	Nadir Curi Mezerani		Residência Jorge Flaks	Rua Anunze, 56, São Paulo	Single Family House
69-77	1975	Carlos Bratke	Renato Leni	Edifício Concorde	Rua Funchal, 65 - São Paulo	Commercial Building
69-77	1975	Jeronimo Bonilha Esteves	Israel Sancovski	Residência Lourenço Veronezzi	Rua Heron Domingues, 140, São Paulo	Single Family House
69-77	1975	Roberto Ezell Mac Fadden	José Paulo de Bem	Estação Sé do Metro	R. Santa Teresa, 63 - Centro - São Paulo - SP	Transportation Infrastructure
69-77	1976	José Eduardo de Assis Lefevre	Domingos Theodoro de Azevedo Netto et al	Praça da Sé	Praça da Sé, São Paulo	Park/Recreation/Sports Facility
69-77	1976	Ruy Ohtake	Roberto Burle Marx	Parque Ecológico do Tietê (núcleo Engenheiro Goulart)	Rod. Ayrton Senna da Silva, 11710 - Vila Santo Henrique, São Paulo - SP	Park/Recreation/Sports Facility
69-77	1976	Ruy Ohtake	Roberto Burle Marx	Parque Ecológico do Tietê (núcleo Tamboré)	-23.506386, -46.841128	Park/Recreation/Sports Facility
69-77	1976	Abrahão Sanovicz		Residência do Arquiteto	Rua Alexandre Marcondes Machado, 33, São Paulo	Single Family House
69-77	1976	Samuel Szpigel	José Magalhães Jr	Edifício Sede do Centro do Professorado Paulista	Av. da Liberdade, 928 - Liberdade, São Paulo - SP	Service Building
69-77	1976	Plínio Croce	Roberto Aflalo et al	Instituto de Educação Caetano de Campos	Rua Pires da Mota, 101 - São Paulo	School/Cultural Center
69-77	1977	Sergio Ficher	Henrique Cambiais Filho	Residência RON	Rua Deputado Euvaldo Lodi, 145, São Paulo	Single Family House
69-77	1977	Plínio Croce	Roberto Aflalo et al	Agencia Tiradentes da Ceesp e Teatro Franco Zampari	Av. Tiradentes, 2508 - São Paulo	School/Cultural Center
69-77	1977	Miguel Sguilaro	Yodo Komatsu	Centro Técnico Operacional do Banco Itaú	Av. do Estado, 5533 - São Paulo	Commercial Building
69-77	1977	Eurico Prado Lopes	Luís Benedito Castro Telles	Centro Cultural São Paulo	Rua Vergueiro, 1000, São Paulo	School/Cultural Center
69-77	1977	Lina Bo Bardi		Centro Desportivo do Sés Pompeia	R. Clélia, 93 - Vila Pompéia, São Paulo	School/Cultural Center
69-77	1977	Roberto Loeb		Centro de Informática da Setes	Rua Nicolau Gagliardi, 401, São Paulo	Service Building
69-77	1977	Sergio Teperman	Paulo Jaraguá Coelho Pelagem	Estação Telefônica da Telesp	Rua Apicás, 537 - São Paulo	Service Building
69-77	1977	Hélio Pasta	Walter Makhohl et al	Edifício Sede do DCE da Eletropaulo	Av. Paula Ferreira, 352 - Pirituba, São Paulo - SP	Service Building

Appendix 3. Interviewees, Archives, and Primary Sources

Interviewees

Candido Malta (07/20/2011)
Caio Santo Amore de Carvalho (07/21/2011)
Giselda Visconti (08/28/2012)
Joan Villá (08/30/2012)
Roberto Pompeia (09/11/2012)
Yopanan Rebello (08/13/2012)
Sérgio Ferro (09/25/2012)
João Marcos de Almeida Lopes (10/02/2012)
Joel Felipe (10/03/2012)
Geraldo Puntoni (10/10/2012)
Vitor Lotufo (10/18/2012)
Flávio Villaça (10/22/2012)
Hugo Segawa (10/29/2012)
Wilton da Costa Lima (10/31/2012)
Arnaldo Martino (10/31/2012)
Ruth Verde Zein (11/09/2012)
Marina Heck (11/13/2012)
Tiago Cavalcante Guerra (12/17/2012)
Wagner Germano (08/29/2013)
Reginaldo Ronconi (08/29/2013)
Reginaldo Oliveira de Almeida (Didi) (09/10/2013)
Isabel (09/11/2013)
Veronica (09/11/2013)
Pedro Jacobi (10/02/2013)

Archives and Libraries

Arquivo Multimeios do Centro Cultural São Paulo
Arquivo Municipal de Guarulhos
Arquivo Nacional – Rio de Janeiro
Arquivo Universidade de Campinas (Unicamp)
Biblioteca Mário de Andrade – Coleção de Artes
Casa da Imagem – São Paulo
Faculdade de Arquitetura e Urbanismo (USP) – Graduação
Faculdade de Arquitetura e Urbanismo (USP) – Pós Graduação
History of Art Library – University of Michigan
Instituto Moreira Salles – Rio de Janeiro

Private Archives

Reginaldo Oliveira de Almeida (Didi)

Tiago Cavalcanti Guerra

Usina - Centro de Trabalhos para o Ambiente Habitado

Vitor Lotufo

Periodicals

Acrópole

Arcoweb

Arquitetura

Arquitetura e Urbanismo (AU)

Arte em Revista

Caramelo

Desenho

Espaço & Debates

Folha de São Paulo

Habitat

Módulo

O Estado de São Paulo

Ou...

Projeto

Veja

Maps and statistics

Centro de Estudos da Metrópole (CEM - Cebrap/USP)

Departamento de de Estatística e Produção de Informação (DIPRO)

Fundação Sistema Estadual de Análise de Dados (SEADE)

Instituto Brasileiro de Geografia e Estatística (IBGE)

Instituto de Pesquisa Econômica Aplicada (IPEA)

Secretária Municipal de Planejamento de São Paulo (SEMPPLA)

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