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Popular Modernism:
an analysis of the acceptance of modern architecture in 1950s Brazil.

by

Fernando Luiz Camargos Lara

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Architecture)
at The University of Michigan
2001

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To Letícia Marteleto,
for all the moments past and future.

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INTRODUCTION

POPULAR MODERNISM: A UNIQUE PHENOMENON

Arriving in Ann Arbor for the first time almost five years ago, I could not avoid noting a general pattern of houses with pitched roofs, wood panels, porches and balloon frames. How different it was from Brazil were I had lived for the previous 26 years. But if these urban configurations were very different from Brazil, I found them familiar, due to innumerable North-American movies and TV series that I had previously seen.

I confess that my first impression was that the houses had been built in the mid 19th century, and a strong commitment to preservation kept all of them well maintained and renovated since then. It was only after seeing new construction going on with exactly the same forms and techniques, that I felt something was really odd about these houses. I was then astounded to learn that the houses downtown were relatively recent, ranging from the 1940s, 50s, 60s with a few even being brand new.

Something was not fitting the pattern that I expected. The houses looked much older than they really were, and moreover, I could not find the post-modern houses I had

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seen in architectural magazines. I also have to confess that I never thought the gap between the high architecture and the ordinary buildings would be as wide as it is, with architects designing only a small portion of the built environment and having relatively less influence on the construction industry. Those discrepancies were familiar to me since they are very similar to the professional realities in Brazil, I just didn't expect similar trends in the U.S.

What was interesting to me, however, both from readings and from traveling around the U.S., was to realize that Modern Architecture had never been popular. As argued by the proponents of Post-Modernism, Modern Architecture has never gone beyond the circle of architects, corporations and upper class clients. That was for me a major difference, for in Brazil modernism seems to have been very popular and widespread. I remember hearing to and reading a lot about post-modernist theories when I was an undergraduate student in Brazil in the late 1980s. At that time, architecture magazines turned their attention to Ricardo Bofill, Mario Botta, Michael Graves, Leon Krier and the writings of Charles Jencks. Astounding as it may sound, architects in Brazil were embracing those post-modernist proponents and discarding our modernist heritage as outdated and unworthy of study. But somehow the post-modernist discourse did not fit the realities of Brazilian streets with the extensive presence of modern architecture.

Growing up in Belo Horizonte, walking or biking around the streets of Prado, Barroca, Horto, Carlos Prates, Padre Eustáquio and other neighborhoods just outside the downtown area in Belo Horizonte, I could not avoid noticing a repetition of certain architectural elements employed on many residential facades. The rooflines are often sloping inward. Innumerable concrete slabs float above the entrance supported by thin

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metal columns. Ceramic tiles in pastel colors cover most of the front surfaces of the houses. Shade and ventilation are very often provided by *brise-soleils* or void blocks cast in ceramic or concrete. In the downtown area, many high-rise buildings use the same tiles, *brise-soleils* and canopies.

The insistent repetition of these elements was what first drew my attention to the wider acceptance of modernism in Brazil. In fact, it needs to be said that although I have walked around these neighborhoods all my life, it was only after coming to Michigan that I realized that Modern Architecture[1] achieved a different degree of acceptance in Brazil. I thought Modern Architecture had been dominant worldwide in the mid 20th century. Even as a tourist in Europe I could not fully grasp the difference in the degree of dissemination of the Modern Movement. It was necessary to experience daily life in another context in order to fully absorb the extent to which Brazil was different.

One of the motivations for this dissertation is the idea that daily-life or ordinary buildings shape our relationship to the built environment as much as the paradigmatic buildings traditionally considered by architectural historiography. Enlarging the scope of what is considered worthy of architectural scholarship, this dissertation presents a investigation of the acceptance of Modern Architecture in Brazil, illuminated by its middle class housing manifestation of the 1950s.

As the historiography states, in Latin America in general and in Brazil in particular, Modern Architecture achieved a distinct identity (FRASER, 2000b; SEGRE, 1991, 1994). It is also common knowledge that it had been strongly influenced by Le

---

[1] I will use Modern Architecture (in capital letters) to refer to the stylistic architectural trend that emerged in the 1920s and was hegemonic until the mid 1970s, and modern architecture (in lowercase) to refer to more general and broader issues not necessarily identifiable as stylistic.

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Corbusier and Bauhaus ideals, but somehow achieved a broader and deeper dissemination. The outstanding examples of the 1940s and 50s, labeled "anti-rationalist pioneers" by Pevsner (1961), by combining the modernist avant-garde and the traditional heritage, can be considered a modernist success in terms of popular acceptance. Such acceptance can be perceived in the innumerable elements of Modern Architecture adopted and applied to middle-class houses in many Brazilian cities during the 50's and 60's. Magnified by innumerable occurrences in all major Brazilian cities, the analysis of such phenomenon labeled here as Popular Modernism is the core of this dissertation.

In most countries, Modern Architecture has never been popular. This statement is among the most publicized reasons for the failure of Modernism (BROLIN, 1976; NEWMAN, 1980; VENTURI, 1967). In Brazil in the 1950's, however, Modernism was very popular. In fact, it lay at the core of the modern national identity and played a very important role in Brazilian culture of that time (SEGAWA, 1994, 1998; LARA, 1998). The 1950s in Brazil was a unique moment for the development of the nation's self-image. This was due not only to the success of its modern architecture abroad (as will be discussed in chapter 6), but also due to its optimism, relative political and economic stability and the acceleration of the model of national-developmentalism (FAUSTO, 1998; SKIDMORE, 1999), especially in the second half of the decade.

The Brazilian case becomes even more singular when we consider the traditional divide between modernism/high-art/institutional and commercial buildings on one hand, and traditional styles/popular culture/houses on the other (HUYSSEN, 1986; COLOMINA, 1996). This divide between a traditional place to live and a modernist place to work has been a trademark of American (and in some cases European) modern

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architecture (OCKMAN, 1996; SCOTT-BROWN, 1977). The fact that the Brazilian middle class of the 1950s adopted modernism as its desired and fashionable style is a very intriguing deviation, a phenomenon that deserves study and investigation and that should contribute to the literature on 20th century architecture.

The vast majority of these Brazilian houses were not designed by architects, but nevertheless presented modernist elements re-used and re-designed. Built by the owners themselves with help of a building contractor and unskilled workers, the houses show an ingenious adaptation and application of a modernist vocabulary. Most of the houses to be analyzed here were built in lots of 12 x 30 meters (36 x 90 feet), with a facade usually only 9 or 8 meters wide only (around 30 feet). Despite the narrow lots, these houses present quite complex facade compositions, usually with one or two major volumes defined by different roof slopes and other minor elements that complete the facade.

Formal characteristics such as inverted roofs and concrete canopies were manifested in thousands of middle-class houses. Smaller elements such as thin steel columns, ceramic tiles and brise-soleils were even more common. Used to evoke modernity, they achieved during the 1950's the status of fashionable popularity.

In order to frame the analysis of such popular modernism into a broader (international) context, the dissertation will first contextualize the contemporary architectural debate. The first chapter frames current architectural issues that pertain to the phenomenon of Popular Modernism, directly or tangentially. Beginning with a literature review on architectural modernism, it proceeds by analyzing the current trends in architectural theory that intersect with Popular Modernism. Organizing those trends in a series of dichotomies, this initial chapter aims to establish the grounds for later location

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of the phenomenon of Popular Modernism between high and low and between center and peripheral architectural manifestations.

Another challenge of this dissertation is to locate Popular Modernism into the context of modernism and in relation to the current challenges faced by architecture. In order to do so, it is necessary to work with the definitions of modernity, modernization and modernism, and its Brazilian manifestation, which forms the structure of Chapter 2. But while the first chapter centers on the current architectural debate, the second chapter investigates certain philosophical concepts in order to help frame Popular Modernism in this broader set of transformations called modernity. In this discussion, works by Hegel, Nietszche, Benjamin and Adorno will be used to illuminate the often contradictory relationship between modernity, modernization and modernism. There are numerous frameworks to investigate that set of relationships, and in this dissertation I choose to approach the issue from the perspective of an ongoing modernity.

Moreover, the idea of an ongoing modernity (HABERMAS, 1987) seems more fruitful than the idea of post-modernity to the study of this unique manifestation of modern architecture because it implies continuation and transformation. Nevertheless, it is quite clear that the failure of modern architecture should be credited to its promise (and resultant frustration) to solve the conflicts of modernity rather than to the exhaustion of modernity itself.

In addition, Chapter 2 will discuss the unique path of Latin American modernism in order to highlight the peculiarities of the Brazilian case. This will provide a framework for situating the Brazilian path of modernization in a global context. Much has already been written about Brazilian Modern Architecture, and a third section of Chapter 2 will

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review such literature to provide a framework against which to study the middle-class houses.

Chapter 3 discusses the methodological strategies and tactics used to collect and analyze the data used in this dissertation. The overall framework follows a case study design, using both interpretive and qualitative strategies in a combination of three data collection tactics: documentation, archival research and in-depth interviews. Chapter 3 ends with a discussion of the strengths and weaknesses of this case study framework using multiple strategies.

Chapter 4 presents the formal analysis of the houses, or aims at defining the nature of these houses, and as such, the nature of what I have labeled Popular Modernism. From a total of 460 buildings documented by the field research, I analyzed a representative sample of 20 facades in terms of their formal composition. Also derived from the larger sample, 23 plans were retrieved and analyzed to investigate the interior configuration of the Popular Modernist houses. Such analysis of façade and plan constitutes one of the main thrusts of original research in this dissertation. Chapter 4 also includes a brief investigation of furniture and interior features that add to the complexity of the relationship between façade and plan. The chapter closes with a discussion of the dichotomous relationship of a modernist façade versus a traditional plan.

In Chapter 5, I analyze the data from the archival research and the in-depth interviews. The chapter begins with an investigation of the Brazilian context of the 1950s and proceeds towards the study of how modern architecture was portrayed in the media. Five magazines were selected for content analysis of articles. Following that, the analysis of the in-depth interviews give voice to the original inhabitants of the houses, by

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revealing their motivations for building as they did. Chapter 5 ends with a discussion of how the architectural information disseminated through different media actually reached the Brazilian middle class.

Chapter 6 begins with a review of the architectural debate of the 1950s in Brazil, raising the question of how popular and how modern the buildings labeled Popular Modernism really are. To this end, the second section locates the phenomenon of Popular Modernism in relation to the high/low architecture dichotomy and the third section locates Popular Modernism on the modern/traditional axis.

The concluding Chapter 7 contextualizes Popular Modernism in terms of the center/periphery dichotomy. It begins by challenging the definition of popular in the Brazilian context and proceeds to discussing the universality of the debate around Popular Modernism. After placing Popular Modernism into the modern / post-modern debate, this chapter proceeds to investigate the uniqueness of the phenomenon. The closing arguments of this dissertation revolve around the idea that Popular Modernism is rooted in local issues but also linked to global themes. From these arguments, a series of lessons from this study and suggestions for further research are derived.

Within the framework outlined above, the main goal of this dissertation is to analyze the dissemination of architectural vocabulary all the way into the middle-class housing application, in order to discuss from an architectural perspective, some of the reasons why Modern Architecture seems to have been better accepted in Brazil than in the U.S. or Western Europe. By doing that, this dissertation presents an original analysis of Brazilian popular modernism in hopes of challenging the traditional boundaries of what is considered valuable architecture.

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CHAPTER I

WHY MODERNISM

This chapter begins by analyzing some of the developments of modern architecture in order to understand the so-called "crisis" of architectural meaning and to locate the study of Brazilian Popular Modernism in a broader context. Regarding modernism as a multi-faceted movement, the idea is to highlight the complex and often contradictory relationship between high and popular architecture, between modern and traditional issues, and between center and peripheral architectural movements. In terms of contemporary architectural issues, this chapter discusses some of the problems of architectural autonomy and the search for internal coherence. The resultant isolationism and disconnection from the general population is illuminated in this chapter by two pairs of relationships: high vs. popular and center vs. periphery. The modern/traditional issue will be explored later in chapters 4 and 6.

Focusing on the current distance between high architectural ideas and popular architectural consumption, this chapter frames some of the problems of contemporary architectural theory that are the foundations of this dissertation.

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Modern Movement in Architecture

In order to understand the dynamics that underlie the phenomenon of Popular Modernism in Brazil it is fundamental to begin with an analysis of the roots of modern architecture and its developments in the first decades of the twentieth century.

To ascertain the reasons behind the Modernist proposals, it is necessary to identify some of the transformations and demands that the process of modernity (as it will be analyzed in Chapter II), brought to the realm of architecture. Those demands or conditions can be synthesized into four main considerations or reasons for modern architecture, shared by different societies worldwide, to a greater or lesser degree. 1) the new industrial society in the large industrial centers replaced the rich and established institutions as the architect's **new clients;** 2) the needs of these clients shifted from palaces, temples or mausoleums to **housing, schools, factory** and **office buildings;** 3) the provision of the buildings for the new urban mass society required **new industrial technology** as the source of the materials to supply the quantity of demand and. 4) the growing **discomfort with the use of traditional styles** emerged among leading architects (NEWMAN, 1980; JAMESON, 1991; FRAMPTON, 1992).

Those four conditions have been around to a greater or lesser degree since the mid nineteenth century, and architectural manifestations by the turn of the century are already responding to those transformations. In Chicago, Louis Sullivan developed the new

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typology of the skyscraper while in Europe the architecture of glass and iron would turn the idea of buildings from opaque to transparent. But it was in the first two decades of the twentieth century that those conditions accelerated; and in response an architectural avant-garde movement arose. At first, the avant-gardist architects had a very plural and multiple agenda, and were unable to build much, investing their ideas in manifestoes, proposals and exhibitions. While Adolf Loos would propose the removal of all ornamentation in name of the evolution of culture, Antonio Sant'Elia advocated for a *tabula rasa*, the erasing of all past. Among the many movements that erupted during the first decades of the twentieth century, two approaches would dominate and be fundamentally important from them on.

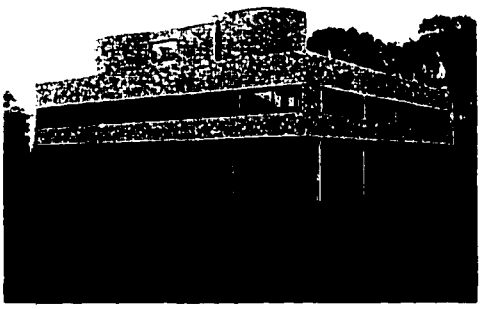


Figure 1.1. Ville Savoye, Le Corbusier, 1929.

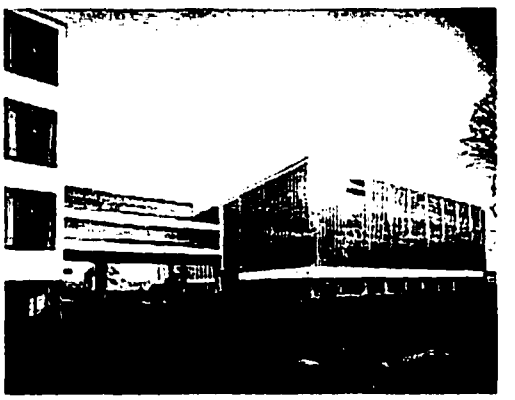


Figure 1.2. Bauhaus at Dessau, W. Gropius, 1915

Around the Bauhaus school in Germany, a group of architects and artists guided by Walter Gropius worked on the task of rescuing art from its isolation, reinventing the relationship between art and life praxis, between arts and crafts, and between art and technology. In France, a group of architects and artists around the charismatic leadership of Le Corbusier, were experimenting on new forms and a new aesthetic for the age of the machine (FRAMPTON, 1992). Until the 1930s, those two groups would promote their

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ideas for the development of a new architectural aesthetic as well as a new architectural ethics. In exchange with other groups from the Netherlands, Russia, Czechoslovakia, Italy and Austria that had a similar interest in a new architecture, an idea of universal modernism was being constructed. However, it was often evident that local realities would lead to different proposals.

The development of modern architecture after the 1930s led more towards a universal set of rules and less towards a local facilitating of transformations (FRAMPTON, 1992). The initial strong social commitment diminished, while a universal formal and aesthetic recipe emerged to be applied everywhere. Such trans-national expression can be clearly perceived on the tone of the International Style exhibit at the MoMA in 1932. Although it is not limited to the American realm, it became more evident in the U.S. than in the politically and intellectually turbulent European context. Writing about European cities, Benjamin's idea of modernity as disharmony and destruction as the ultimate outcome of modernization may explain those transformations in the role and aspirations of modern architecture (BENJAMIN, 1979). Architecture, more conservative and careful about the dangers of modernity and modernization, would be used as an attempt to control and order -rather than exacerbate- the turbulent process of modernization (ADORNO, 1960).

Instead of being derived from the encounter of a universal modernity and a local modernization as David Harvey pointed out (1989), the idea of modernism as a formal recipe inverted the equation aiming to control the dangers of modernization. Born from the turmoil caused by the acceleration of modernity, modern architecture gradually turned

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into a stabilizer, a substitute for conflicting modernity and turbulent modernization. As Corbusier pointed out on the final sentence of his canonical book *Towards a New Architecture*[1], architecture could be a way to avoid revolution. I think it is important to point out here that the missionary component - or the promise that a new architecture would lead to a better world – was inherent in the roots of modern architecture, but from then on such mission would be controlled or at least filtered by the structures of power.

Formalist dogmas then substituted the role of universal modernity (RILEY, 1992) and anticipated modernization in places like Brazil, Mexico, Turkey and India (after the independence). The Brazilian case exemplifies the situation in which canonical architectural modernism represented an image of modernization rather than actual modernity (SEGAWA, 1994, 1998). This image (or style) would be used as part of a promise strong enough to postpone the social concerns that derived from the turbulent process of modernization and that were latent there and elsewhere. As Perry Anderson proposes, one of the major forces behind artistic modernism is the proximity of social revolution (ANDERSON, 1984, p.324). In 1930s Brazil as well as in the 1920s Weimar Germany and Revolutionary Russia, this was certainly the case although in all those places the revolutionary component of architectural modernism was suffocated to the advantage of the formal component.

David Harvey also gives us a hint for understanding why architectural modernism became a "style." Harvey points out that "modernism from its beginning became preoccupied with language, with finding some special mode of representation of eternal truth" (HARVEY, 1989, p.20).

---

1 "Architecture or Revolution. Revolution can be avoided." (CORBUSIER, 1986: 289).

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Emerging from an avant-gardist position, modern architecture became the new dogma, and was crystallized as a set of formal rules.[2] It is interesting to analyze this change in terms of Peter Burger's "Theory of the Avant-garde" (1984). Using Burger's definitions of avant-garde in opposition to modernism (and he defines modernism as the climax of 19th century academicism), modern architecture left the experimental realm of the avant-garde by a series of changes: 1) it began to emphasize form more than content; 2) it began to deal with space in terms of unity and hegemony of the whole rather than fragmentation and the independence of parts; 3) it lost the connection with the transformation of life praxis and left behind every possibility of social transformation. Following Burger's definitions, we should say that the modernist style operates the same way as 19th century academicism does. Isolated from the culture from where it should emanate,[3] modernism's main difference was stylistic: white plain columns instead of Doric or Corinthian ones and a flat roof instead of a pediment, for instance.

The different definitions and concepts of modernity are present in every moment of architectural modernism. Sometimes convergent, architectural modernism seems to be the ultimate materialization of modernity. Sometimes divergent, architectural modernism seems to react against and negate modernity. In one way or another, architectural modernism is a result of modernity. According to Harvey, there are moments in which

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2 A complete definition of modernism as a set of spatial and compositional rules is provided by Bruno Zevi in his "The Modern Language of Architecture, Seattle: U. of Washington Press, 1978.

3 Regarding the isolation between high-modernism and mass culture, Andreas Huyssen reinforces the notion that the modernist work of art is: 1) autonomous and separate from the realms of everyday life; 2) self-referential and experimental; 3) product of individual consciousness rather than a Zeitgeist; 4) analogous to science, produces and carries knowledge; 5) exploration of an encounter with language; 6) effacement of content; 7) maintaining purity, autonomy and avoid contamination with mass culture. HUYSSEN, A. After the Great Divide: Modernism, Mass Culture, Postmodernism, Bloomington: U. of Indiana Press, 1986.

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architectural modernism is the unstable and fluctuating aesthetic result of the encounter between universal modernity and the particular modernization. This would be a more avant-garde modernism, the one that celebrates its process and proposals more than the building as a product. At other times, architectural modernism is used as an attempt to solve some of the conflicts inherent in the process of modernization, by universalizing its formal and aesthetic rules. Such would be the modernism of the "international style", in which the building as an individual self-referent final product is more important than the process or the proposals that generated it.

However, in both cases architectural modernism help perpetuate modernity. When generated as a result of instability and avant-gardist experimentation, architecture materializes the conflicts and the problematization of modernity. When generated as a tentative stylistic solution to those conflicts, it also helps perpetuate modernity by exposing the frustration of such attempt. The impossibility of solving the conflicts of modernity reinforces Habermas' ideas of critique as a necessary self-reassurance (HABERMAS, 1987). Playing for and against modernity, the different architectural modernisms were in a way dealing with its major outcome by operating in the gap between faith and knowledge.

The experimentation of the avant-garde would be dangerously and provocatively working on the gap between faith and knowledge, while the stylistic modernism pretended to bridge the gap once and forever. But instead of moving between the ideas and working with their conflicts and disruptions as Habermas proposes, stylistic modernism is crystallized in a formalist style that somehow freezes it, allowing no further

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transformations or critique. The exhaustion of modern architecture was due much more to its dogmatic attitude and lack of critique than to the problems of modernity itself.

One of the major themes in contemporary architectural scholarship deals exactly with the revision of such modernist dogma, its rise, decay and the re-visitation of a plethora of divergent ideas or even forms suffocated by the rise of the "international style" (COLOMINA, 1996; GHIRARDO, 1996; OCKMAN, 1997; HILL, 1998; GREGOTTI, 1996).

It is important then to perceive architectural modernism as a plural and diverse phenomena. Under this plurality, the study of Brazilian Popular Modernism should add a modest contribution to the broader re-vision of the Modern Movement currently being pursued by several architecture scholars.

Current Challenges in Architecture

Among the many problems that arise as an outcome of the tumultuous relationship between modernity, modernization and modernism (as will be discussed in depth on the following chapter), architecture faces a dilemma regarding its own definition. Some would propose a search for internal coherence and narrow the field of what is deemed to constitute valuable architecture (EISENMAN, 1979; MONEO, 1978; JENCKS, 1990). Others would argue for broadening the definition of architecture to encompass if not the totality, then at least a larger portion of the built environment

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(ACKERMAN, 1980; KOSTOF, 1995; FISHER, 1994). Both groups share in common the notion of architecture as a field in crisis marked by the gradual diminishing of its role and importance on society (GROAT, 1992; GHIRARDO, 1991, 1996; CRAWFORD, 1991). As Sola-Morales reminds us, both terms - *crisis* and *critique* - share the same root that in Greek means *separation* (SOLA-MORALES, 1997: 3). The central argument of this chapter is that the present crisis is a result of a widening gap or separation between high and low architectural manifestations, as well as between what is considered center and what perceived as periphery in terms of architectural ideas.

The study of Popular Modernism is crucial to this discussion. Popular Modernism is an architectural phenomenon that lies on the boundaries of what is traditionally called architecture. Dealing with hybridization and popular appropriation of modern architecture, such analysis of Popular Modernism adds complexities and contradictions (paraphrasing Venturi, 1966) to the contemporary challenges in architecture.

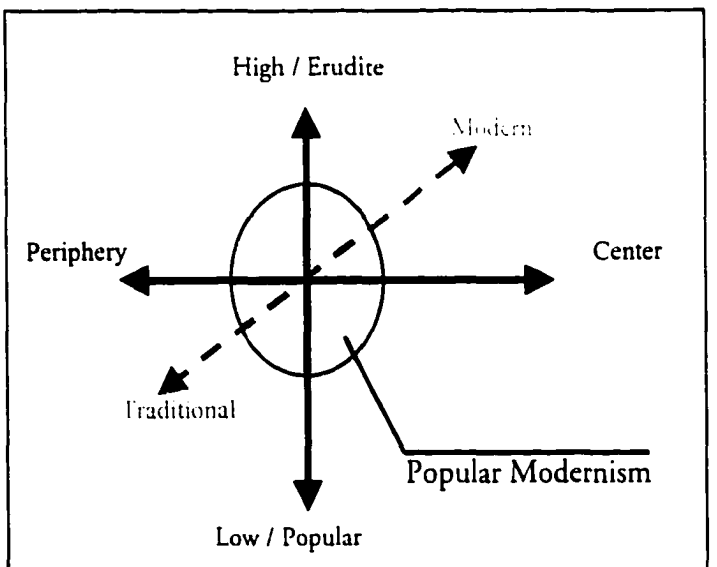


Figure 1.3. Diagram of theoretical axis regarding the context of Popular Modernism

Three main axes help us define such boundaries of architecture. One runs horizontally (across world regions), and defines what is central and what is peripheral in

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the production and consumption of architectural ideas, trends and movements. The other runs vertically through different layers that share the same space, defining what is erudite or "high" architecture and what is popular or "low" architecture. A third one, not to be analyzed in the following sections but on Chapters 4, 5 and 6, adds a third dimensionality between traditional and modern. The phenomenon of Brazilian Popular Modernism lies at the crossing of those axes, dealing with issues of center-periphery, high-low and modern-traditional at the same time.

This kind of movement has always been depicted as problematic as Denise Scott Brown, back in 1977, said:

> "most architectural ideas seem to originate within a small, international clique of high-culture architects, who may themselves have found the ideas outside high culture, for example in industrial architecture. These ideas are then picked up and popularized by upper-middle taste culture architects, and they become, as Modern architecture is now [1977] accepted as a style of the establishment. The process of altering Modern architecture to make it acceptable to upper-middle and lower-middle taste publics is viewed by the architectural avant-garde as prettifying and selling out, a pyrrhic victory for Modern architecture." (SCOTT BROWN, 1977, p.49)

The resistance of architects to popular taste elucidates how architects see themselves. The ultimate embodiment of culture, the star-system architect has the duty of preserving high culture from any popular contamination, except when filtered by his expert knowledge. The same goes for the architectural "centers" of Paris, London and

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New York, dictating and at the same time preserving the ultimate development of avant-garde architecture, while other places are attached to the main historical lineament as punctuate regionalist manifestations. Kenneth Frampton, for instance, despite coming from a Marxist tradition, reinforces the prejudices against popular and peripheral reinterpretations of architecture. In Frampton's proposal there seems to be no way for the local vernacular to invert the direction of influence and reinterpret elements of the universal paradigm as disjunctive episodes. The mediation of the architect would be missing, and Frampton cannot allow for such phenomena to acquire the status of architecture. According to Frampton, in order to be critical of modernization, architecture needs to assume an arriere-garde position and mediate the impact of universal civilization with elements derived ***indirectly*** from the peculiarities of a particular place. What strikes me in this statement is the term "indirectly", and I tend to understand the meaning of such as a kind of filter. The society by itself would not be able to resist modernization, and the architect acts here as the embodiment of knowledge as a connoisseur who filters the local peculiarities through the lenses of his/her knowledge.

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Center versus Periphery

To discuss issues of center versus periphery I will begin by analyzing Frampton's famous proposal of *Critical Regionalism* (FRAMPTON, 1992) in terms of the possible interactions between those two extremes of the axis. Before entering the analysis of the interactions itself, I will divide them into the two axes described above: Horizontal or geographical interactions are the ones that occur between different regions on the globe, between different locals. Vertical or low-high interactions are the ones that occur between different cultural realms in the same place, more specifically interactions between high culture and low or mass culture.

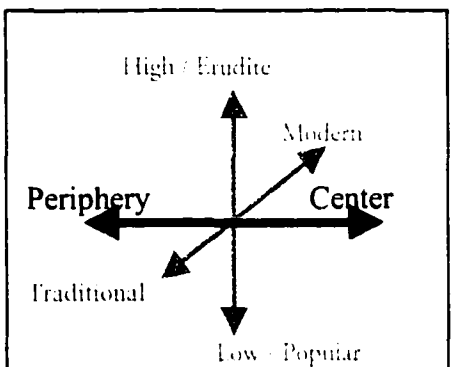


Figure 1.4. Center-Periphery diagram

Paying attention to the interactions as presented by Frampton, both on the horizontal and on the vertical realm, I shall say that they tend to work in uni-directionally only (LARA, 2000a). For instance, Frampton recognizes that cultures depend on cross-fertilization (FRAMPTON, 1992, p.315) but he operates in a system that labels some as central and some as peripheral. It is not clear how the fertilization would happen the other way around, from the periphery to the center. It seems as if Frampton's dynamic can only operate on a one-way path, from the center to the periphery and from above to below. Later on, he states that "Critical Regionalism will, on occasion, insert reinterpreted vernacular elements as disjunctive episodes within the whole. It will, moreover,

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occasionally derive such elements from foreign sources" (FRAMPTON, 1992, p.327).

A question that arises from this statement deals with the possible inversion on the direction of such influences. Frampton is proposing a dynamic of influences that should operate both on the horizontal plane (between different regions) and in the vertical plane (between high and low culture). It is interesting to perceive, however, that while he talks about "foreign influence," the balance of those influences is inversely proportional to its distance to the very "center." In other words, traces of British architecture would be strongly perceived in India, but India has little or nothing to contribute to the definition of British local architecture. The closer to the "center", the more those dynamics are based on identity in Frampton's model, and the further into the "periphery' the more they are based on alterity.

Having problematized Frampton's Critical Regionalism in terms of one-way path, I would like to question some of the traditional dichotomies between center and periphery. Frampton himself pointed to the direction I would like to follow, going back to the dawn of modern architecture. According to Frampton, due to a kind of post-war conservatism, the 1930s represent a critical period in the history of modernism. "The chronic insecurity of the newly urbanized masses, the upheavals caused by war, revolution and economic depression, followed by a sudden and crucial need for psycho-social stability in the face of global political and economic crises, all induce a state of affairs in which the interests of both monopoly and state capitalism are, for the first time in modern history, divorced from the liberative drives of cultural modernization". (FRAMPTON, 1983, p.18) Such seems to be the roots of the dangerous universalization implied by Ricoeur, a universalization that is not liberative and progressive anymore, but

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totalitarian and authoritarian.

Andreas Huyssen also presents the transformation that occurred in the 1930's, from the perspective of the expanding gap between high and low culture. According to Huyssen, the avant-garde tried an alternative relationship between high art and mass culture, but the high modernism of the in-between wars years was already divorced from and moving further from any interaction with mass culture (HUYSSEN, 1986).

It is clear from the developments of architecture after World War II that modern architecture was desperately trying to materialize in building forms a stability that did not exist in society (FRAMPTON, 1992; SCULLY, 1992; KOSTOF, 1995). Confidence in the transformations that modernization would bring had long gone, and architecture no longer had the freedom to expanding the boundaries anymore. Instead, it tries to operate further and further from the boundaries, in a centripetal movement that explains the abandonment of social and political concerns in favor of formal and aesthetic trends. The history of CIAM is exemplar in that matter, for each meeting the perception is of less and less mobility and more and more of a desperate search for stability.

Coincidentally, around the time that Kenneth Frampton was publishing his essays on Critical Regionalism[4], the Italian magazine Lotus International published an issue called *Hybrid Architectures*. The comparison between the two texts that appeared back in 1980 sounds very interesting, especially when one tries to understand what happened during the last 20 years that separates us from both publications. While Frampton talks about resistance and re-interpretation, the articles on Lotus International show many different cases in which two influences are combined together. The main difference lies

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in the fact that Frampton can only perceive the flowing of information (or technology as he prefers), from one center to the many peripheral places. According to Frampton, there is no possibility of return, counter-influence or reflecting back on the center. Still focused on the architect as the legitimate embodiment of culture, or in order words, defining architecture as the building designed by famous architects, Frampton narrows his analysis to some canonical regional examples like Tadao Ando, Mario Botta and Alvaro Siza Vieira. The majority of architecture's books and magazines followed this trend in the 1980s and early 90s, transforming those architects in icons of "regionalist" architecture.

From a very different perspective, the articles in Lotus International discuss a variety of architectural expressions, most of them not tied to a single architect, but rather a product of an entire city or culture in a certain time. Broadening the definition of what they consider architecture, all the essays in Lotus consider the phenomena of hybridism as a two-way path in which both origins and sources are modified by the encounter that generated such architecture. While most of the architectural media did not followed this trend, it has been re-viewed by scholars affiliated with post-colonialism and feminism with growing visibility in the second half of the 1990s.

The concept of a collision can explain better the difference between Frampton's Critical Regionalism and Lotus International hybridism. In a colliding encounter, as in a car accident, both vehicles (and vehicles is a nice word to signify the mobility of the different ideas) suffer the impact and are transformed by the energy liberated during the crash. Although the degree in which they are transformed is proportionally inverted to their original masses, there is no collision in which one side remains intact. That's what

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[4] It is worth of noting that the first edition of *Modern Architecture: a critical history* , 1980, does not

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Frampton's Critical Regionalism cannot encompass. For Frampton, technology (or style for a broader definition of what is irradiated) flow only from the center to the periphery.

Placed into a passive role, the peripheral architect can only resist (and Frampton uses the term resistance for such) or modify "critically" the influences he receives with his regional features. In a different kind of interaction, not only the periphery is transformed by the influence coming from the center, but the encounter (or collision) with peripheral cultures also transforms the center. Modified by such encounters, both center and periphery are left with scratches, marks, risks, scars that may be hidden by make-up but are legible with a investigation under the surface level. One of the goals of this dissertation is to illuminate some of those traces and marks from the lenses of Brazilian Popular Modernism.

High versus Popular

The relationship between Architecture and popular culture is definitely complex and very often contradictory. High architecture (or the buildings traditionally defined as worthy of study by architectural scholars), sometimes diverge from and at other times converge to what is considered popular culture. The moments of coincidence and divergence

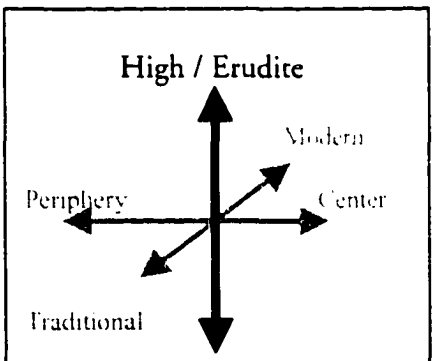


Figure 1.5. High -Low diagram

contain the fifth chapter on Critical Regionalism, which was added on the second edition in 1983.

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are many, and the origin of such oscillation can be traced back to the Renaissance and the division between the architect and the builder[5]. As stated by Andreas Huyssen (1986), modernity has always had a volatile relationship between high art and popular culture, and here we should understand modernity as the transformation in Western society after the 18th century. Since the 18th century the gap between high art and popular art has become wider as a result of gradual loss of art's role as a public ritual and the increasing use of art as means for individual expression (BURGER, 1984). This volatile relationship would culminate with the modernist avant-garde alternative idea of using the arts for transforming life praxis. After the failure of the avant-garde alternative, the divide between high art and popular culture has grown wider. In architecture it has been more difficult to bridge this divide due to the economic dynamics of architectural practice. As proposed by many authors, the division between high architecture and popular culture after modernism has never been so pronounced (GHIRARDO, 1996).

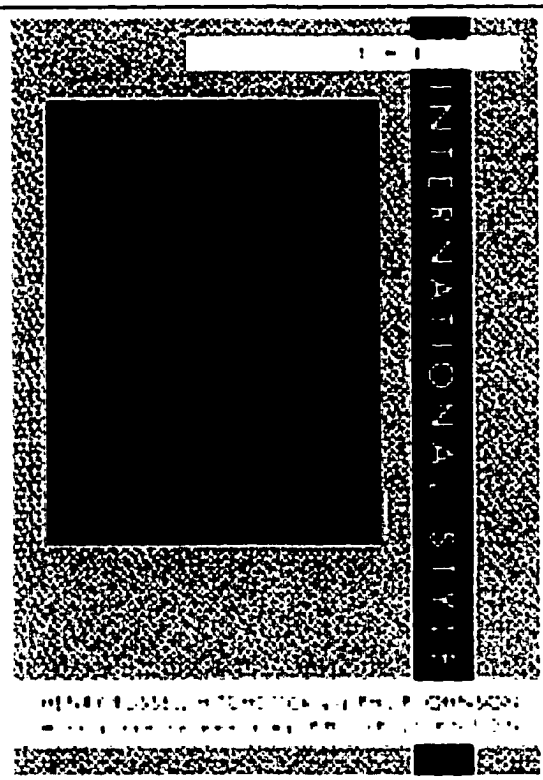


Figure 1.6. Catalogue of the International Style exhibition at the MoMA, 1932.

It is interesting to perceive from the mainstream history of modern

5 The division between architect and builder implies the division between architecture and building. Separated from common buildings, architecture becomes one especial set of construction, or those that are designed by architects. This division lies in the center of the relationship between high architecture and popular culture and will be discussed later on the third section of this answer.

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architecture that the issue of popular culture crosses its path in many moments. Two of these deserve our attention. At the beginning of the century, the avant-garde had the task of using art (and architecture) to connect with (and sequentially disconnect from) popular culture in order to transform life praxis. When "the modern" made its first official appearance on the US with the MoMA exhibition in 1932, the issues of popular culture was again present, or we should say, absent. Phillip Johnson, Russell Hitchcock and Alfred Barr organized the exhibition that would launch modern architecture in the United States. What is interesting to perceive from the organization of the exhibition is how Johnson manipulated the choice of what would and (maybe more important) what would not be exhibited. This choice influenced enormously the development of American modern architecture subsequently.

According to Beatriz Colomina (1996), Philip Johnson detached modernism from everyday life in order to appropriate it by high culture, translating Corbusier's interest in popular culture into an exclusive high-art aesthetic. Born from the avant-garde, modern architecture had in its origin a strong connection with the transformation of everyday life and consequently with popular culture. This connection was already fading in Europe in the early 1930s, but Johnson's framework discards it completely and transforms modernism into high culture exclusive possession. The appropriation of modern architecture by high culture is not exclusively an American phenomenon. In Europe, Le Corbusier was proposing the *connection des élites* for the adoption of modern architecture and the avoidance of revolutionary dangers. However, due to the nature of American popular culture, such appropriation and the consequent distance between

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modernism and popular culture became more evident here than anywhere else[6].

At the other end of the modernist adventure in the US, the MoMA once again tried to redefine the relationship between architecture and popular culture 34 years later, in 1966, with the publication of *Complexity and Contradiction* by Robert Venturi. In his book, Venturi argues for the revision of the modernist paradigm and the hegemonic consensus of Mies' statement *less is more*. Venturi's "less is bore" would become a postmodern slogan but more important than that for this analysis is the value he gives to popular culture. Acknowledging that modern architecture had detached too far from everyday life, Venturi proposes that the architects look for inspiration in the strip commercial zone of every American city, and from there draw the elements necessary to bridge the gap between architecture and popular culture. It is interesting to note here that while Venturi was praising image, the French Situationists were arguing against the prevalence of image and for the rescue of content in architecture (LEACH, 1999: 62). The issue of image versus content is present in most of the key architectural moments of the second half of the twentieth century and will be extensively discussed in terms of Brazilian Popular Modernism. A master of irony, Venturi plays with signs, antennas,



Figure 1.7 Venturi's Complexity and Contradiction, MoMA, 1966.

6 Scott Brown relates private clients with traditional styles, and public commissions with modernist ideas. In the US, she says, the decentralization of the construction industry helped the maintenance of traditional styles, as much as the profit-oriented market strategies. SCOTT BROWN, D., "Architectural Taste in a Pluralistic Society", The Harvard Architectural Review, Cambridge: MIT Press, 1977, pp. 41-51.

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pitched roofs, bricks, and other signs of American popular culture, re-inserting them in his elaborated architecture. Venturi tries to reconcile architecture and popular culture, but for him the architect is still the filter through which such encounters can occur[7].

Those two moments (1932, 1966) not only represent the symbolic beginning and end of modern architecture in the U.S. but also exemplify the traditional role played by architects in relation to popular appropriation. Such role implies the construction, by architects, of one identity (at the center) to be later applied everywhere, in every cultural context. Frampton asserts that the reinterpretation of vernacular elements inserted into high-architecture is one of the major strategies of his critical regionalism. What the study of Brazilian Popular Modernism allows is precisely the opposite, or the application of elements derived from high-architecture appropriated into vernacular or popular culture.

Also in conformity with the concept of Popular Modernism is Joan Ockman's (1997) concept of minor architecture. Quoting Gilles Deleuze's and Felix Guatarri's "Minor Literature," Ockman would propose the need for a minor architecture. For Deleuze and Guatarri (1986), "a minor literature does not come from a within a minor language; it is that which a minority constructs within a major language." In this case the Brazilians are the peripheral minority (of modernists)constructing its minor architecture within the language of modernism. At this point I follow with Ockman's writing that, after demarcating some differences between architecture and literature's realm, proposes that:

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7 According to Steve Harris and Deborah Berke in their "Architecture of everyday", Venturi's concept of vernacular is a one way path. The high cultured architect may appropriate from the low, but not the other way around. HARRIS, S. and BERKE, D., The Architecture of Everyday, New York: Princeton Arch. Press, 1997.

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> "Deleuze and Guatarri's theory of minor literature can suggest to those who have long been excluded from the major territory of architecture (...)a different strategy from either the nostalgic reterritorializations of recent postmodernist practice or, on the other hand, the shock tactics associated with the militant tradition of the avant-garde. (...) [L]ittle by little appropriating it and making it strange, until the normative, the familiar, becomes something new[8], the inception of a different consciousness: 'Since the language is arid, make it vibrate with a new intensity' (DELEUZE and GUATARRI, 1986: 19).

Ockman's minor architecture also plays with alterity, with that "other" against which one can be defined. The traditional role of architecture has always resisted and denied contamination by that "other" represented by popular culture, except when filtered by one of "our" architects. Popular culture has always re-interpreted many "others" especially high-art and architecture, and will continue to do so in that "minor" manner presented by Ockman, consciously or unconsciously. This dissertation takes advantage of the dynamics between minor and major buildings in Brazil to better anchor both in the relevance of their context.

In conformity with that idea of minor architecture Denise Scott Brown states that:

> "for all architects a broadening of the terms of reference can be a means of sharpening and refining their aesthetic sensibilities. Ranging beyond the confines of one own taste culture and conditioning provides an aesthetic

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8 About appropriating something familiar and making it strange, Nasar and Percill's work in architectural cognition show that lay people tend to prefer some typicality with something a little different to individualize it.

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jolt. It opens the eye to new possibilities of beauty and revives the creative energies. At least, it can help architects to understand the context in which they build" (SCOTT BROWN, 1977, p.51).

In those terms, this dissertation aims at navigating between high and Popular Modernism, deriving from both realms and responding to both contexts. It also implies a broader definition of architecture to encompass its popular manifestation as valuable buildings worthy of study, documentation and attention. It is the goal of this dissertation to reinforce the idea that the interactions between high and popular architecture are not only possible but valuable. This would lead ultimately to the re-definition of the term architecture. The need to reconsider the dynamics between architecture and popular culture in the 20th century is also the need to re-define architecture. The ideal definition would take into consideration the various layers that constitute the totality of the built environment, and not only the artificially constructed extremes that traditionally represent the paradigmatic model of high architecture versus the reductionist model of the vernacular. The following chapters of this dissertation aims at dealing more with the multiplicity of trends in between them and less with the extremes.

Moreover, the issue of meaning in 20th century architecture is tied to the debate about high architecture and popular culture. In the United States, this issue deals with the division between a corporate modernism and a traditional housing industry. In Brazil the main challenge was the definition of *brazilianess* (authentic Brazilian character) that would arise from the encounter between high and popular cultural expressions.

The bridges between high and popular and between center and peripheral architecture are important, but the tremendous diversity and variety of building

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phenomena can be found in the act of crossing boundaries, not in the safety of the centers. The study of this relationship is risky, but deserves a try.

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CHAPTER II

FROM UNIVERSAL MODERNITY TO BRAZILIAN MODERNISM

Modernity, Modernization and Modernism.

Beginning in the final decades of the 19th century, one can perceive transformations in architecture that announced the emergence of modernism. Those transformations are intimately related to the idea of modernity, and it is clear that modernity is the major reason behind modernism. The important issue to be investigated here, as stated on the chapter title, is how the ideologically different architectural modernisms in general and the Brazilian case in particular were developed out of modernity.

In order to do that this chapter attempts to analyze the development of the idea and the definitions of modernity since the 18th century, drawing from Hegel, Nietzsche, Benjamin and Habermas.

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Individualization and reason, two of the main roots of what we later called modernity are analyzed by Hegel (1988) in *his Lectures on the Philosophy of World History,* from the 1820s. For Hegel, modernity was already happening at that time and he sees himself very much into modern times. Such a concept of modernity is defined by the increasing individualization sustained by the swell of reason that should lead to higher degrees of freedom. In Hegel, individualism equals freedom, that equals reason, and the definition of these three main ideas should conceptualize the roots of modernity.

Individualization and universalization are inseparable for Hegel. Hand in hand with individualization comes an increasing universalization of norms and actions. Hegel's cultured man is the one who acts rationally but according to universal principles.

In *Lectures on the Philosophy of World History*, Hegel analyzes the development of world history and its inevitable path toward freedom. For Hegel, the accomplishment of freedom is inevitable. He understands world history as successive steps toward such freedom (HEGEL, 1988:130). In order to illustrate this view, Hegel depicts Asian civilizations as a kind of childhood, not yet self sufficient, while classical Greece represents a kind of youth, an age of separation from nature. Following this evolution, the Romans stands for manhood, where the individual opposes the universal, and Christian civilization, especially Germany, would be able to be free and reconcile with divine reason, finally achieving a stage of maturity.

In Hegel, the concept of *Geist* is central to the philosophy of history. *Geist*, or the absolute idea, represents the ultimate reason, the principle behind all world phenomena, abstract and universal (HEGEL, 1988: 69). Differing from *Zeitgeist* (spirit of the time), *Geist* has no chronological dimension, suffering no transformation or evolution in time.

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Free from any time dimension, *Geist* is the divine spirit that structures the world. Reason is the explanation of such divine structure, the expression of *Geist*, explanation of God. If reason can explain God, there can be no limit for such absolute explanation, therefore there are no limits for reason. The idea of endless rationality is crucial for understanding modernity. Perceived as a result of increasing rationality, modernity encompasses at that point some of the infinite dimension of reason. If reason cannot be finite in order to explain God, modernity is also an ever-unfolding process, pushed by crescent individualization and boundless rationality.

Writing from within modernity, Nietzsche has a much more critical view of reason and this differentiates him from Hegel. It is not that Nietzsche denies the importance of reason but that he shows the dangers of such hegemonic ideals, and dissociates reason from the idea of divine. *On the Genealogy of Morals* (1897), Nietzsche does not refer specifically to the term modernity, concerned more with the relationship between reason and morals. Both his critique of morality and its implied critique of reason respond precisely to the various manifestations of a modernity that does not carry the weightless dimensions of novelty anymore, but rather the heavy status of hegemony.

As a result of such all-encompassing modernity (or better, in reaction to it), Nietzsche inaugurates the disenchantment with reason and for him, there is no ultimate truth to look for. Truths are multiple and depend on one's perspective. The abandonment of the idea of ultimate truth in Nietzsche has the effect of reducing everything to a more relative value. But the same relativism that may reduce the previous importance of things enhances the value of art, according to Nietzsche. It will be interesting for the goals of

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this dissertation to perceive how modern architecture, both in its high and popular manifestations, deals with this idea of relative truth.

Nietzsche also started to perceive the dramatic authoritative dimensions of modernity, and art for him, especially romantic art, contains the possibility of challenging and overthrowing such authority. In Nietzsche art has to be something active and transformative.[1] Nietzschean critique of passivity as ill and danger applies to art also, which should be active, and as we will discuss later, modern architecture is very much in favor of such active attitude.

For Benjamin, modernity is inescapable.[2] The uniqueness and divinity of reason has gone. Without the belief in a movement towards perfection, modernity becomes, for Benjamin, a hegemonic process that can destroy more than create. Responsible for the contemporary incompleteness of life, modernity has destroyed the harmonic whole of inherited traditions, breaking the past apart and rearranging it according to its own dynamics.

Disruption, fragmentation, allegory, all those terms are extensively used in Benjamin and anchors him somewhere out of modernity, sometime after it. His position is somehow like a *flaneur,* contemplating the world but not less submitted to the powers of modernity. Leaving the metaphorical realm and entering Benjamin's critique of

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1 Differing from Kant, Nietzsche recognizes an active component in artistic creation. Kant, as Nietzsche noted, "instead of approaching the problem of aesthetics from the experiences of the artist (creator), mediated over art and beauty from the standpoint of the spectator" (NIETZSCHE, 1897: 139)., in which all that pleases is beautiful By this point of view, art can be sublime but it also carries a passive attitude, all the possible effect reposing on the receptor, not on the creator.

2 As much as Hegel sees modernity as the inevitable development of reason, Benjamin perceives modernity as something unavoidable, although there's no teleology left.

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modernity, we encounter the issue of technology at the center of his writings. It is important to note that Benjamin is contemporary of modern architecture and most of his writings were done at the same time that Le Corbusier, the Bauhaus and other were promulgating their ideas about space and urban issues.

The ultimate expression of modernity, technology transforms the way people deals with the world and with themselves. In *Paris, Capital of the Nineteenth Century* (1979), Benjamin analyses the phenomena of contemporary metropolis and the new kinds of interaction within it, the new characters introduced on stage. Technology is the reason behind the appearance of iron structures and glass facades (BENJAMIN, 1979: 147). This increasingly urban transparency and lightness modifies the ways in which people interact with the city and with themselves. Fully exposed, always on display, fashion and architecture come together to design another behavior for mankind in big cities. The image acquires an importance never dreamed before, and as a result of ever accelerating modernity, becomes more important than the actual substance or content. Modern architecture would inevitably suffer this super-valorization of image. Not coincidentally, glass and iron are the materials used at world exhibitions, achieving the ultimate commodification of objects. Commodity, as depicted by Benjamin, is the never-ending illusion of novelty.

The idea of commodification and the illusion of novelty bring to the realm of art the problematization of modernity and its technological implications. In *The Work of Art in the Age of Mechanical Reproduction*, Benjamin depicts what he calls the decay of the aura. According to Benjamin, the aura, or the unique phenomenon of distance however

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close the work of art may be (BENJAMIN, 1969: 224), is lost during the process of mechanical reproduction.

In terms of art's function, Benjamin reminds us that it has changed from cult to exhibition. No longer aiming to represent something else, art has now an end in itself in which its ultimate function is to be exposed, exhibited, publicized. His concept of allegory illustrates better his attitude towards the fine arts. As fragments detached from its context and rearranged in a new manner, the work of art responds to itself only. Collage, montage or allegory (to use a slightly different benjaminian term) will be fundamental for us to understand Brazilian modern architecture.

When commenting on architecture, Benjamin calls it "everlasting" (BENJAMIN, 1969: 242) since building appropriation is not only based on sight and on touch, but also on distracted perception. Such distracted perception rescues architecture from the cult of exhibition, bringing new features and placing it out of the negative implications of reproducibility. However, architecture cannot be as much revolutionary as the cinema[3] most of the times tending to be rather reactionary. In Benjamin, images have the power to represent culture, and by doing that, reveal the unknown. If we can say that culture became the structure behind reality in Benjamin, then culture replaced God, and images (not reason) becomes the ultimate expression of modernity.

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3 The cinema, able to switch between concentrated and distracted perception, has the same features that rescues architecture from the reproducibility's trap and a much powerful revolutionary potential. By providing distraction and concentration at the same time (BENJAMIN, 1969: 240), film is able to turn the audience into something passive or active. By breaking up reality, the cinema returns to the audience its sense of expertise, making them interact, which should be the new social function of art. The images, according to Benjamin, can not only replace thoughts to the spectator, but can also detonate, provoke thoughts. If Benjamin has no teleology, the cinema is the depository of his entire hope.

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Habermas uses the term modernity to define the transformations in Western society since the late 18th century or the period historically called the Enlightenment. His definitions are more abstract than Nietzsche's and Benjamin's ideas, but not less powerful when it comes to understanding modernity, modernism and modernization.

According to Habermas (1987), modernity can be defined by four characteristics. First, the "**reflective treatment of tradition**" or the lost of tradition's quasi-natural status. Confident in its own time and place, one cannot assume the past as something complete and natural, but instead is forced to reconsider and rethink the inherited traditions, questioning and criticizing them. Second, modernity is also the result of the "**universalization of norms of action**", provided by the increasing contact between different cultures which gradually defines one single pattern of accepted behavior. This pattern should be adopted and adapted elsewhere. Related to this universalization of norms of action is the **socialization oriented to the formation of ego-identities**. Children are guided towards the development of their own individuality, and have the freedom of action into the space defined by the accepted pattern of behavior. The individual sees his own time as ***nova aeras*** or new era, in opposition to the previous description of the present as *nostra aerum* or our time. The difference between *nova* and *nostra* implies the increasing individuality and distance from the previous tradition, since the present is neither collective (*nostra*/our) nor related to the past (*nova* = new, towards the future).

At this point in his analysis of modernity, Habermas goes back to the Hegelian concepts of subjectivism to overlap its categories of individualism, right to criticize, autonomy of action and idealistic philosophy to the idea of modernity. In common with

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Hegel's concepts is the idea that the demolition of religion leads to a division between faith and knowledge that the Enlightenment cannot overcome by its own. Reason alone cannot mediate between faith and knowledge and such necessary mediation is the possible role and place of the arts. As I will discuss later in this chapter, modern architecture tried to respond to this gap between faith and knowledge in a very clever way, presenting itself as a possible solution to this philosophical problem.

In order to understand modernity and modernism nowadays, we have to uncover some other trends and investigate the presence of the definitions above according to the current debate. Marshal Berman, in his "All That's Solid Melts Into Air" presents the idea of "modernity as a mode of vital experience shared by mankind" (BERMAN, 1988: 15). Berman's proposition raises an important question about what do we share today in terms of mankind, and how can we define modernity nowadays?

Deriving from Hegel the idea that modernity leads toward emancipation and freedom, and from Nietzsche the idea that modernity has to criticize itself constantly to avoid the dangers of the hegemonic reason, Habermas would respond with the idea of modernity as an ongoing process[4]. According to Habermas, modernity cannot solve the conflicts that lies at its origin, and has to reassure itself continuously. Habermas position is that a rational critique is the only way to improve this ongoing process of modernity. As an answer to his opponents, Habermas argues that the idea of the end of modernity is

4 The idea of modernity as an ongoing process is supported by many authors, especially the ones with a more left-wing political attitude. Perry Anderson, for instance, would defend dramatically that the modernist revolution is not over yet. ANDERSON, P. "Modernity and Revolution", New Left Review, 1984, p.321.

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neo-traditional in the sense that it searches for values and traditions that are immune to criticism[5].

From the definitions briefly presented above, we can understand modernity as a result of a series of conflicts and transformations experienced since the 18th century on the Western world. As a historical process, it would be presumptuous to declare the end of the historical period of modernity and the beginning of something else. Contemporary set of social relations and individual perceptions teach us that many of the trends that generated modernity still exist today. We still deal with a similar set of problems like the division between faith and knowledge, accelerating individualization and universalization, and the need for a strong critique of reason. It is true that we do not believe in grand narratives anymore, but those narratives seem to be much more of an outcome of modernity than a fundamental characteristic of modernity itself. When seen through the more abstract prism of Habermas, modernity seems like an ever-mutant process that we still experience, and the past definitions of modernity reinforce the notion that many of its old problematization are still around.

Also, as mentioned in the introduction, the idea of an ongoing modernity seems more fruitful than the idea of Postmodernity to study modernism and to re-evaluate 20th century architecture. Such proposition is based on the idea that the failure of modern architecture should be credited to its promise (and resultant frustration) to solve the conflicts of modernity rather than to the exhaustion of modernity itself.

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[5] At this point I could expand the discussion of Habermas' ideas in opposition to the advocates of post-modernism. But since the main goal here is the study of Brazilian Popular Modernism I will leave such discussion to a section of the last chapter on "The Universality of the Debate".

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From the extensive literature on the relationship between the idea of modernity and architectural modernization, David Harvey's definition best serves the purpose of this research. According to Harvey, "modernism is a troubled and fluctuating aesthetic response to conditions of modernity produced by a particular process of modernization" (HARVEY, 1989: 99). A closer look at Harvey's definition raises a series of interesting points. Implicit in this statement is the idea of modernity as a universal concept that produces modernism from the self-conscious interaction with the local particular modes of modernization. Following Harvey (and in a way in accordance with Habermas), modernism would be the product of the encounter between the universal modernity and the particularized process of modernization.

Harvey's definition fits very well with the plural and revolutionary times of architectural modernism before the 1930s. At that time, many different architectural modernisms co-existed, and although they were not yet reduced to a "style", they shared some of the same values and rationale.

Brazilian Modernization in Face of Universal Modernity

As discussed in the previous section, the ideas of modernity are many and differ in time and space, but they are commonly perceived as a universal set of transformations occurring in western societies since the 18th century. Since the main focus of this dissertation is the study of the acceptance of modern architecture in Brazil, before going into the analysis of Brazilian architectural modernism it is necessary to understand the specificity of Brazilian modernization.

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As a reductive overview, we can divide the Brazilian process of modernization in three moments: the conservative modernization of the 19th century, the avant-garde of the 1930s and the developmental policies of the 1950s (ORTIZ, 1985; SKIDMORE, 1999). All three moments will be fundamental for us to understand how modernization (as an outcome of universal modernity) arose in Brazil.

Before entering the first moment of Brazilian modernization in the 19th century, it is necessary to briefly state the complexities and paradoxes of the country's independence process. By the end of the 18th century, Brazil was by far the most important Portuguese colony, and would achieve the status of metropolis when D. João VI's court (10 to 15 thousand people) moved to Rio de Janeiro in 1808 fleeing from Napoleon's invasion. After D. João VI returned to Portugal (1821), his son Pedro declared Brazilian independence (September 7th, 1822) fearing that Brazil would follow its neighboring countries and become an independent republic. As a result, Brazil would be an independent empire (with close ties to Portugal and England) until 1889.

During the so-called Second Empire (1840-1889), some efforts towards capitalist modernization began. Emphasis was on agricultural exports, not on industrialization, as Thomas Skidmore reminds us:

> "Brazil's historic role in the world economy was a supplier of tropical and semi-tropical products to the North Atlantic economies. In the seventeenth century, Brazil grew relatively prosperous from her sugar exports to Europe; in the eighteenth century, gold and diamonds replaced agricultural exports without altering Brazil's 'peripheral' position in the world economy; and in the later

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nineteenth century, coffee emerged as the new major export earner."

(SKIDMORE, 1967:41)

Around 1850, the economy based on a slave labor force started to move towards free labor under British pressure. The transatlantic slave trade was prohibited and after 1871 every child born from a slave was free. To maintain the abundance of labor force necessary for coffee and other agricultural business, immigration was stimulated. As noted by Micael Hershman and Carlos Pereira, from 1870 to 1910 the main idea behind immigration policies was to "civilize". By civilize the authorities meant also to change the racial composition of the Brazilian population by setting up immigration goals privileging northern Europeans to the detriment of Asians, Middle-Easterners and southern Europeans. (HERSCHMAN & PEREIRA, 1994: 11).

With the republic (1889), the idea of Brazilian modernization shifted a little towards the positivist motto of *Ordem e Progesso* (order and progress) as written on the national flag until today. Modernization for the urban commercial elite and the military that took power with the republic meant improving technology, industrial production and communication, but the social reforms that would bring the benefits of these improvements to the general population were not undertaken. Around the first decades of the twentieth century, Brazilian modernization was like a scenery, a play enacted by very few members of its elite trying to be European in the tropics (FAUSTO, 1998: 246).

After 1922 with the emergence of a new "modernist" intelligentsia, and especially after 1930 with the revolution that brought Getúlio Vargas to power, the main idea behind modernization became the adjustment between modern ideas and the Brazilian reality. The task becomes the construction of a native modernity based on racial mix as

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the main reference, and the unification of the image of the nation through the search for "brazilianess". Robert Levine points out that "modernism, in some way, fit neatly into Brazil's intellectual transformation from the experimentation and soul-searching of the 1920s and early 1930s, to the Estado Novo notion of celebrating the nation as a fusion". (LEVINE, 1998: 38)

The idea of fusion will be important since it implies blending but also implies centralization, unification. Threatened by regionalist disputes and inequalities, the old republic (1889-1930) fell to a military coup in 1930. Getulio Vargas, the revolutionary commander who rose to the presidency, began a strong effort in both industrial and educational modernization, at the same time that he was centralizing power under the federal government. The result is what Boris Fausto calls "conservative modernization" or Garcia-Canclini calls "incomplete modernization" (FAUSTO, 1998; GARCIA-CANCLINI, 1995). The industrial and economic transformations are not followed or supported by changes in the social stratification, to assure that the 'progress' would never threatens 'order'.

Regarding industrialization, the objective was to reduce the dependence on imported manufactured goods and at the same time diversify Brazilian exports. Based primarily in agricultural products, the export revenues dropped violently after the stock market crash of 1929. At that point, up to 70% of the Brazilian population lived in rural areas, and that would change dramatically in the following decades. In education, the objective was to reduce illiteracy by providing elementary school for the masses and search for the roots of "brazilianess." It is noted by some of the scholars who wrote on the Vargas period, that one of his government most intriguing characteristics was the

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inconsistency of an authoritarian regime and its intensive repression with the integration/cooptation of modernists into the state apparatus (HARRIS, 1987). Hugo Segawa, writing about architecture, dissects the impact that the triad centralization, interventionism and nationalism would have on architecture (SEGAWA, 1998). This is especially noted when we perceive that many of the artists and intellectuals who had, in 1922 participated in the *Semana de Arte Moderna*[6] were working for the new government. Their task was the formulation of a new Brazilian identity, the re-discovery of the country (PECAUT, 1990, GARCIA-CANCLINI, 1995:52). This task is in tune with the apogee of nationalism on the 1930s, as described by Hobsbawn (1990).

The third moment of Brazilian modernization, the 1950s, is contemporary to the popular modernism that is the object of this dissertation, and will be analyzed separately on Chapter 5.

Back to the modernizing practices of the 1930s generation, more than searching for Brazilian heritage, they were gradually constructing one specific memory. Such was done by collecting among its many ancestors, the ones that better fulfilled their future plans (LARA, 1998). It is worth pointing here that the *Barroco Mineiro*, or the artistic expression of the 18th century mining society of Minas Gerais has been since then, the most disseminated example of Brazil's past tradition. The idea or the image of modernity chosen by the Brazilian elite of the 1930s had to be anchored in the past to overcome the competition with other concepts of modernity, and this was done through manipulating

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6 Coincidentally organized in the same year the Brazilian centennial of the independence was celebrated, the Semana de Arte Moderna (Modern Art Week) was a kind of manifesto-exhibition that put together cubists, fauvists and futurists and gave those avant-gardist the first broad publicity in the newspapers and radio programs. In common they had their interests in both the international modernism and the search for knowing and defining the Brazilian.

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the educational system (FAUSTO, 1998) and materializing a desired image in architectural terms. As David Underwood pointed out referring to the Ministry of Education building (Lúcio Costa and team, 1936-45), "it was designed to project an image of Brazil's modernity to the rest of the world" (UNDERWOOD, 1994a: 27), as will be analyzed in the following section.

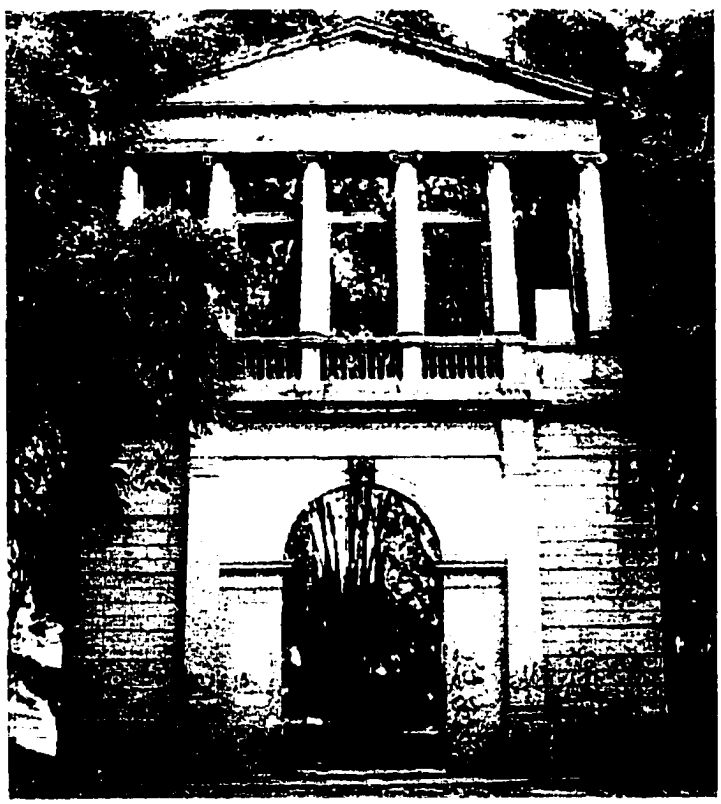


Figure 2.1. Surviving façade of the ENBA old building, Jardim Botânico, Rio de Janeiro.

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Brazilian Modern Architecture

In order to understand Brazilian modern architecture, we need to go back 100 years to the beginning of nineteenth century and the process of Brazilian independence. When the Portuguese court moved to Rio de Janeiro in 1808 fleeing from Napoleon's rule, a group of dissident French artists who served the king of Portugal moved with him. Once in Rio, they founded the *Escola Nacional de Belas Artes - ENBA (National School of Beaux Arts)*. We have to highlight at this point that before 1808 Brazil, as a Portuguese colony, was prohibited from having institutions of higher education. The ENBA, mirrored after the French Beaux Arts Academy was then responsible for forming the first generation of Brazilian school-trained artists, and left a huge academicist influence that endured until the first decades of the twentieth century. Among the strongest legacies of the French influenced ENBA, was the devaluation of the eighteenth century baroque, perceived, as in France, as a worthless degeneration of classical architecture credited to the excesses of Iberian and South-American exuberance.

By the end of the nineteenth century, ideas of modernization start to arise in Brazil with the development of railroads, communication lines, incipient industrialization and growing urbanization. But the tone of the buildings involved in those projects would

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still be neo-classic or academic as demonstrated by the governmental buildings of the designed and newly constructed city of Belo Horizonte, inaugurated in 1897.



Figure 2.2. Orthogonal grid of Belo Horizonte, designed 1895, photo from 1953.

Modernist ideas arrived late in Brazil. Until the 1920's, the European avant-garde had an impact only on some isolated paintings and literary works around the country. In architecture, some modernist houses were built in the late 1920's, but the curricular reformation at ENBA (1930) is considered the starting point of Brazilian modern architecture (LARA, 1998; COSTA, 1995; SEGAWA, 1998).

In 1930, Lúcio Costa, a 28 year-old architect was named Director of *ENBA* (Brazilian School of Beaux-arts). Costa, who was trained at the *ENBA* years before, started his career designing neo-colonial buildings but was one of the first advocates of modernism after getting in touch with Corbusier's ideas. As soon as he was named, Costa

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began a radical reformation of the art and architecture curriculum, based on the Bauhaus pedagogy and Corbusier's ideas in architecture. At first, the designation of Costa was part of Vargas strategy to deal with a delicate balance of progressive and conservative forces, but the resistance against Costa's reformation was so strong that the polemic electrified everyone[7]. Modernists and conservative academics would battle for every competition and major commission through the 1930s, and Vargas would play the role of balancing that until the modernists became the paradigm in the early 1940s. (SEGAWA, 1998; CAVALCANTI, 1995).



Figure 2.3. Lucio Costa (1902-1998), circa 1980.

As early as 1925, Brazilian architects were already publicizing modern ideas. Two articles appeared in São Paulo's newspapers: one by Rino Levi, an Italian immigrant, and another by Gregory Warchavchik, Russian immigrant. Levi and Warchavchik would be the first exponents of what contemporary historiography calls *Modern Architecture in Brazil* (made primarily with directly imported ideas), to differentiate from Brazilian Modern Architecture (made under the Brazilian ideas and formal vocabulary). Rino Levi would go on as one of the main architects of the

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7 In 1931 Eliel Saarinen and Frank Loyd Wright were in Brazil as jurors for the Columbus Light Tower competition, and at the ENBA students were on strike to support Lucio Costa. According to Elisabeth

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"Brazilian modernism", while Warchavchik would play an important role as Costa's partner for a while and also as the first Latin-American delegate to the CIAM, invited by Corbusier himself in 1929. At that time, Corbusier's visit was quite unnoticeable outside the realm of architecture's schools, but after 1936 Corbusier would leave a strong influence in Brazil. According to one of his biographers, Elisabeth Harris, the country

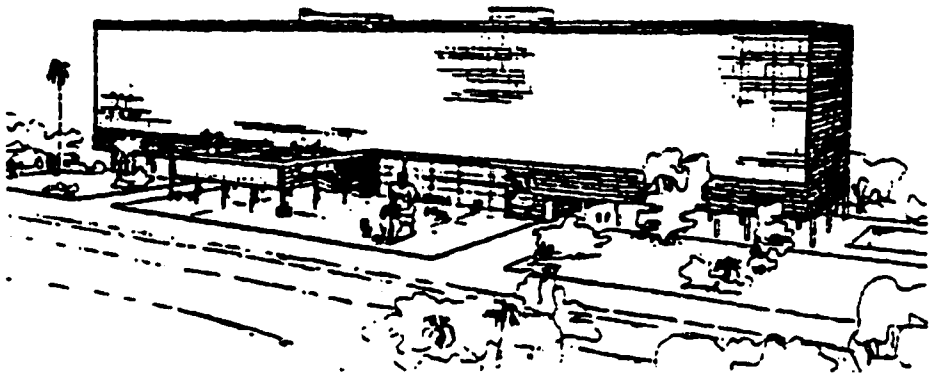


Figure 2.4. Corbusier sketch for the MES building, 1936.

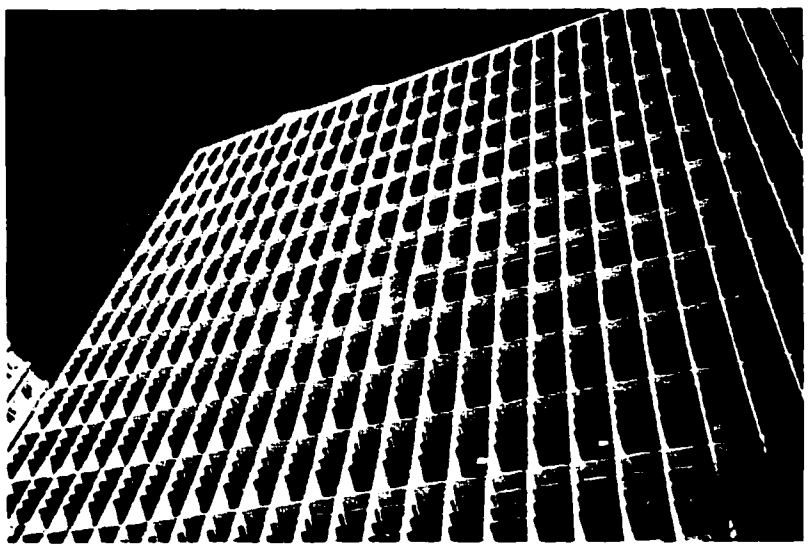


Figure 2.5. MES building, Costa and team, Rio de Janeiro, 1936-1945.

Harris (1987:51) and Adriana Irigoyen (2000) Saarinen stayed away from the polemics, but Wright went public to support the students and Costa and was celebrated by doing that.

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would also leave a strong influence in his works and thoughts. In 1936 Corbusier was invited as a supportive consultant for the team of architects commissioned to design the new building for the Brazilian Ministry of Education (MES).

The invitation to Le Corbusier served as a justification for canceling the previous competition (won by Mariano Filho the year before) since the classicist winning design was considered by the government incompatible with the modern image that they were trying to establish[8]. From Corbusiean architecture this early generation of Brazilian architects learned the "valorization of architecture as a plastic art, the preoccupation with formal matters, and the sensitivity to local conditions" (UNDERWOOD, 1994a). From the Bauhaus pedagogy, they appropriated the idea of conciliating the applied and the fine arts, synthesizing them all into architecture. The freedom and the importance of experimental teaching is an issue also acquired from the Bauhaus program. However, the traditional historiography of Brazilian modern architecture reinforces much more the connections with Le Corbusier. As stated by Ruth Verde Zein and Carlos Comas in recent interviews[9], the Bauhaus in general and Mies in particular would constitute strong influences, hidden by the architects themselves and dwarfed by Brazilian modernist historiography due to ideological dichotomies of the time[10].

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[8] The competition for the MES building and the collaboration with Corbusier has been widely documented in architectural historiography. For recent discussion on the issue see Valerie Frasier (2000) and Carlos E. Comas (1998).

[9] Ruth Verde Zein was interviewed in São Paulo, July 9th and Carlos Comas was interviewed in Porto Alegre, July 11th, 1999, during my field research.

[10] Mies, working in Chicago after the war, represented the American corporate version of modern architecture and his influence, although significant, was never assumed by the mostly left-wing Brazilian architectural realm.

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The blending of the modernist European avant-garde project and the traditional baroque legacy served as a conceptual basis for designers like Oscar Niemeyer, Luis Nunes, Carlos Leão, Mauricio and Marcelo Roberto, Affonso Reidy and others. The designs produced by this generation sought to solve the conflict of nationalism vs. internationalism, and modernist avant-garde vs. traditional heritage (MINDLIN, 1956; PAPADAKI, 1956; GOODWIN, 1943). As reminded by Lauro Cavalcanti, "The Brazilian modernists achieved the dream of every revolutionary, controlling the erudite and popular edges, as well as having recognized their knowledge about the past and the future" (CAVALCANTI, 1995: 23).



Figure 2.6. Brazilian Pavilion at the New York World Fair, Costa + Niemeyer, 1939.

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Two events mark the international publicity of Brazilian modernism. At the 1939 New York World Fair, the Brazilian pavilion[11] attracted the attention of the architectural media. But the Brazilian success of that summer was Carmen Miranda on Broadway, and Brazilian architecture would have to wait until 1942 to become famous. As part of the good-neighborhood policy towards South America[12], an exhibition was put together at the MoMA. The exhibition Brazil Builds showed works by Costa, Reidy, Levi and mainly the young Niemeyer. His buildings under construction at Pampulha were on display and the exhibition catalogue, divided into new and old buildings, highlighted the connection with the local baroque (GOODWIN, 1943).

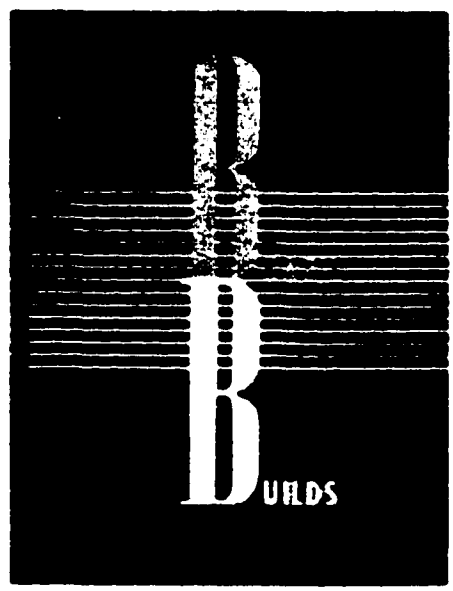


Figure 2.7. Brazil Builds catalogue, MoMA, 1943.

11 Lúcio Costa had won the competition organized by the Ministry of Foreign Affairs for the Brazilian Pavilion at the 1939 New York World Fair. However, reflecting on his design and the runner-up entry by Niemeyer, Costa proposed that they work together in combining their entries into a third project that would be better than the previous ones. That was accepted and together they designed the Brazilian Pavilion for the 1939 New York WorldFair.

12 It is worth of note that Gustavo Capanema (Brazilian minister of education and culture) was a personal friend of Nelson Rockfeller, the major sponsor of the U.S. government "Good-neighborhood Policy" toward Latin America.

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Supported by the Federal Government and adopted by the emerging sectors of the urban society as the desirable image, modernist architecture was spread all around Brazil due to exhibitions, competitions, commissions, urban designs, interior shows and etc. Among those opportunities, a series of buildings were commissioned around Pampulha's artificial lake, in the city of Belo Horizonte. The city mayor, Jucelino Kubitchek (who would be the president that build Brasília 15 years later), had known Niemeyer since the construction of the hotel in the neighbor city of Ouro Preto, and did not hesitate giving him these commissions following advice from Costa and Capanema (LEMOS, 1979).

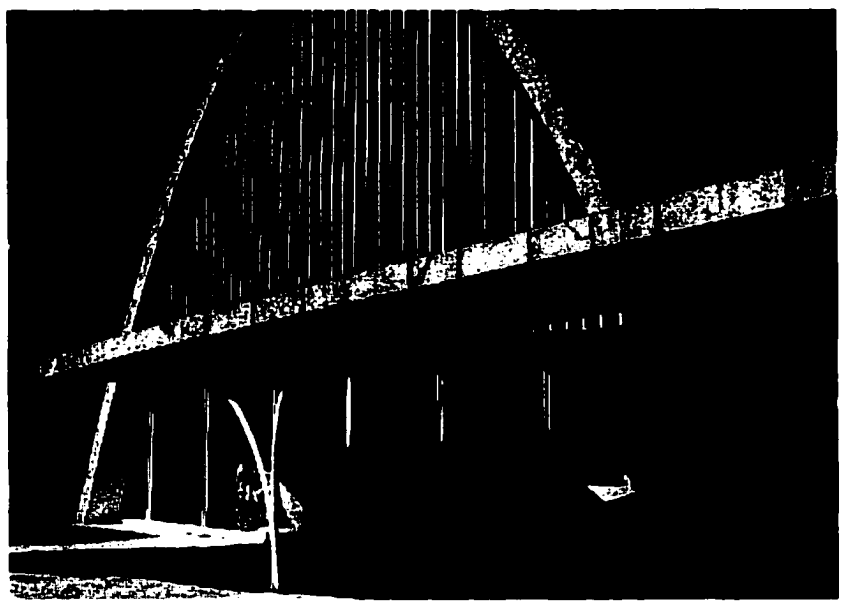


Figure 2.8. Capela da Pampulha, Niemeyer, 1942

The designs of *Capela da Pampulha, Casa do Baile, Casino* and *Iate Clube*, became the paradigm for Brazilian architectural modernism for decades. A brief analysis of the buildings shows traces of the "designed memories" (LARA, 1998) adopted and adapted to modernist syntax for achieving a more effective and impressive

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identity. The *Capela da Pampulha*, as it is known or Chapel of Saint Francis of Assis, is a little chapel built in a small peninsula in a curved piece of land between the lake and the road that goes around it. With its back facing the street, the first view for the visitor is the mural of *azulejos* (painted ceramic tiles) by Candido Portinari [Fig. 2.9] that covers its entire back wall. The use of *Azulejos* is a Portuguese heritage broadly used on Brazilian modernist buildings. Gardens by Roberto Burle Marx guide the visitors around the chapel, taking you to the *adro* (open area in front of churches used as transition space) that spreads between the entrance and the lake margins. Its floor in an amoeboid pattern in white marble and black granite penetrates the chapel and unites inside and outside in an unconventional manner. From the *adro* one can see the whole form, its parabolic vaults covered by little ceramic tiles (pastilhas), the glazing and brise-soleil at the façade, the inverted bell tower and its inclined canopy uniting the tower to the main door that marks and defines the entrance. Inside, the parabolic vault is covered in wood, with the baptistery on the left side and a fresco by Portinari depicts the life of St. Francis on the rear wall. A gap between the main vault (lower) and the back part (higher) brings natural light to illuminate the fresco. The other vaults house the sacristy and the offices of the parish. Celebrated by the architectural community, the *Capela da Pampulha* was seen by the Catholic Church as inappropriate for the catholic rituals and left un-sacred for many years, until the building and its designer became famous worldwide.

The Casino was also built in a peninsula between the lake and the road, this time with the entrance to the main cubic volume facing Burle Marx's gardens and the driveway. Elements of the entrance like its free-form canopy supported by thin steel columns and the continuous glass wall on the facade would be exhaustively replicated all

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around Brazil from then on. Inside the cubic main volume, the ramp dominates functionally and the round concrete columns punctuate the rhythm of the interior space [Fig. 2.10]. At the back, closer to the lake, an elliptical dancing hall is integrated with the main volume by another ramp, and its continuous glass wall brings the lake landscape inside the building. Kenneth Frampton exalted that "Niemeyer genius reached its height in 1942" at the Casino, where he "reinterpreted the Corbusian notion of *promenade architecturale* in a spatial composition of remarkable balance and vivacity"(FRAMPTON, 1992).

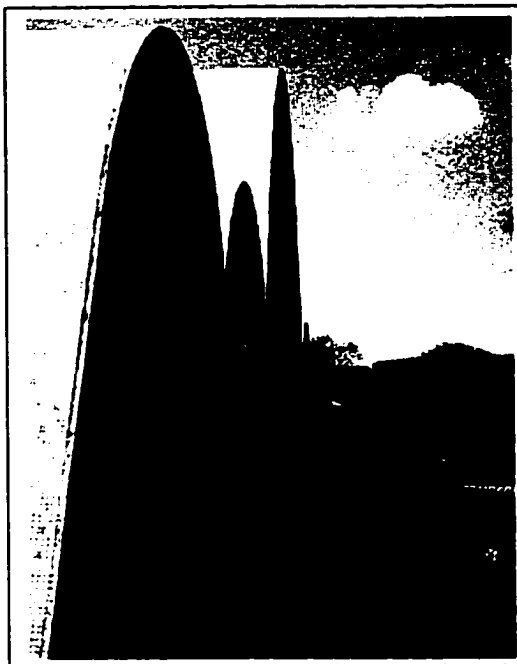


Figure 2.9. Capela da Pampulha, view from the street.

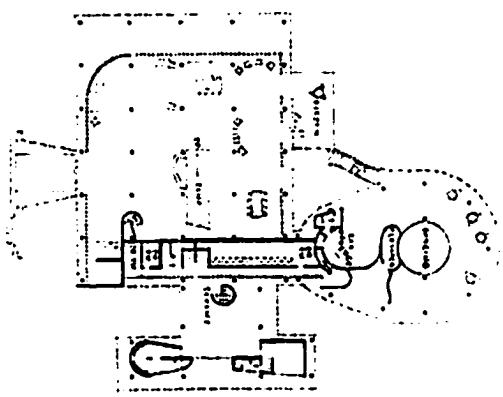


Figure 2.10. Plans of Casino, Niemeyer, 1942.

At the *Iate Clube*, Niemeyer experimented with the inverted roof that would also be a trademark of Brazilian modernism in order to maximize the view of the lake for those using the main upper hall for dinning during the day or for night balls. The only one of the Pampulha buildings that is private owned, the *Iate* was also built in 1942.

In the *Casa do Baile* (dancing hall), a small cylindrical building houses the bar, the band stage and a dozen dinning tables. Attached to this cylinder is a meandering

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canopy supported by rounded columns that provides shelter and defines the space, connecting to the restrooms that are in a second cylindrical volume at the end of the composition. The volumes are covered with painted ceramic *azulejos.* The canopy is the highlight of the building and, following the curves of the lake, defines the external space for those under it and frames the view for those passing by the road. There were also plans for a hotel, never built, in an island of the lake.

Segawa notes that "in Pampulha, Niemeyer (now working alone) produced an architecture further away from Corbusiean syntax, certainly more mature and personal than his designs for the 1939 Brazilian pavilion or the 1940 Hotel in Ouro Preto (SEGAWA, 1998: 98). If on one hand Niemeyer was applying the Corbusiean idea of spatial promenade, he was also challenging the Corbusiean paradigms of *Five Points*, especially at the *Capela.*

As a response to the contradictory forces that lies in its roots, these buildings try to solve the conflict between local versus international references, representation versus abstraction and industrialization versus artisan construction. Many of the demands that are the basis of European modern architecture, supposed to serve the working class, were absent in this context. The new social programs that should be their generator are absent, and instead, the buildings are governmental commissions for a church, a casino and a dance hall are much closer to 19th century bourgeoisie than to 20th century working class it was supposed to serve. The industrialization and mass-production that should precede modern architecture are also absent, and although the buildings present a modern image, they were carefully hand-crafted despite the new materials used.

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Frampton labels the Casino a "narrative building", an idea that very much reinforces the connection between modernism and baroque on the Brazilian case (FRAMPTON, 1992). The image (narrative) overcomes the structure (content) which lies behind it. This creates a facade of modernity in which memories (past roots) are as important as future promises on the articulation of this identity. But the same Frampton that praises the Pampulha buildings states that it "contains within itself the seeds of decadent formalism", referring to Brasilia (FRAMPTON, 1992: 257).

As perceived also by Eduardo Guimaraes back in the 1950's, Niemeyer formal exuberance would be copied and spread all around Brazil, but the same powerful concepts that were responsible for its success would be the reason for the self-sufficiency and isolation that became its later fate (GUIMARÃES, *A&E,* 10-1958: 3). On the other hand, Segawa also points out that the Brazilian ability for assimilation and conciliation was seen as exuberance or decadence by dominant European rationalism (SEGAWA, 1998: 139).

But before the crisis of the 1960s and the isolation of the 1970s, Brazilian architecture was celebrated internationally as a step ahead of the functionalist and rationalist theories (PEVSNER, 1961), Brazilian Modernism acquired at home the status of a paradigm (SEGAWA, 1998). The combination of governmental support and the blending of modernity and the architectural heritage cannot alone explain the singular success of Brazilian Modern Architecture.

From 1945 to 1960 the country experienced enormous growth and changes (BENEVIDES, 1979; ORTIZ, 1988). The major cities doubled every ten years due to industrial expansion and farm mechanization. Some of the reforms initiated by Vargas in

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1930 had an effect three decades later. In Brazil, the 1950's are known as the "Golden Years" due to their promises, optimism and an apparently stable democracy and economy. The working middle class grew in terms of political and economic importance, and they adopted an urban way of life. As a result of this new political and economic role, the middle class demanded a modern look or, in effect, a modern façade (ORTIZ, 1988: 32).

In the periphery of every Brazilian major city we can find modernist elements applied to middle-class housing. As Henry-Russel Hitchcock noted at that time, one could find in-sloping butterfly roofs, out-sloping facades and a variety of sun-screening and *brise-soleils* devices everywhere in Brazil (HITCHCOCK, 1955: 30). Brazilian households of the 1950s adopted modernism as the fashionable style for their houses. The issue of the country's identity raised three decades prior by intellectuals and artists penetrated Brazilian social strata, after being adopted by the government as the official discourse. Brazilian Modern Architecture was adopted as the aesthetic paradigm, despite Brazilian regional differences or social discrepancies. An identity had been intellectually constructed and was been enthusiastically and massively applied.

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CHAPTER III

METHODOLOGY

This chapter describes and discusses the methodological strategies and tactics used in the dissertation research. Following an overall case study framework (YIN, 1994), the research uses a combination of two different strategies and three different data collection tactics.

The importance of the combined methodological strategies and data collection tactics comes from two important goals that underlie this dissertation beyond the specific research questions proposed. The study of Brazilian Popular Modernism has a two-fold goal in terms of the anticipated outcome and contribution to scholarly knowledge in architecture. Regarding the Brazilian realm, the study aims at understanding a crucial but hitherto neglected aspect of our architectural heritage. Given that this popular modernism occurred throughout the country, the study of these architectural phenomena becomes an

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indispensable step in comprehending the dynamic scope and nature of contemporary architecture in Brazil. However, to fit into a dissertation format, this study opted for a case study framework in order to accomplish an in-depth understanding of the phenomenon and its context. As clarified by Yin, a case study research design is "very useful, especially when the boundaries between phenomenon and context are not clearly evident" (YIN, 1994: 13).

At the same time, the study also seeks to address the corollary problem of broadening the definition of what constitutes and should be taken to constitute architecture. This also links Popular Modernism to the international discussion, since the study challenges some of the traditional boundaries between modernism and previous styles, between high art and popular culture, and between center and periphery. In order to address the whole scope of those relationships, a combination of multiple strategies and tactics was necessary.

Research Overall Framework	**Research Strategies**	**Data Collection Tactics**
Case Study	Interpretive	physical inventory + archival documentation of houses in city records (buildings)
		archival research in journals and magazines from the 1950s (archives)
	Qualitative	in-depth, open ended interviews with original residents (people)

Table 3.1. Combined research strategies.

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Given the aforementioned objectives and anticipated contributions of this study, its ultimate purpose is to ascertain **what** constitutes the phenomenon of Popular Modernism that happened in Brazil, as well as to define **why** and **how** it took shape. Here again, a case study approach is seen as more appropriate for research concerned with what, how and why (YIN, 1994: 5). In terms of research strategies, an interpretive approach would address the question regarding what and why, while a qualitative approach would address the question of how (see Table 3.1). Following that, three main data collection tactics were developed around the three main research questions:

1) The physical inventory aims at investigating **what** defines and constitutes the phenomenon of popular modernism in Brazil, i.e. what are the forms, shapes, compositions and materials used in those houses?

2) The archival research in magazines and scholarly literature aims at illuminating **why** did this phenomena occur in Brazil and, correspondingly, what are the forces that might explain the appearance of the modern houses in question?

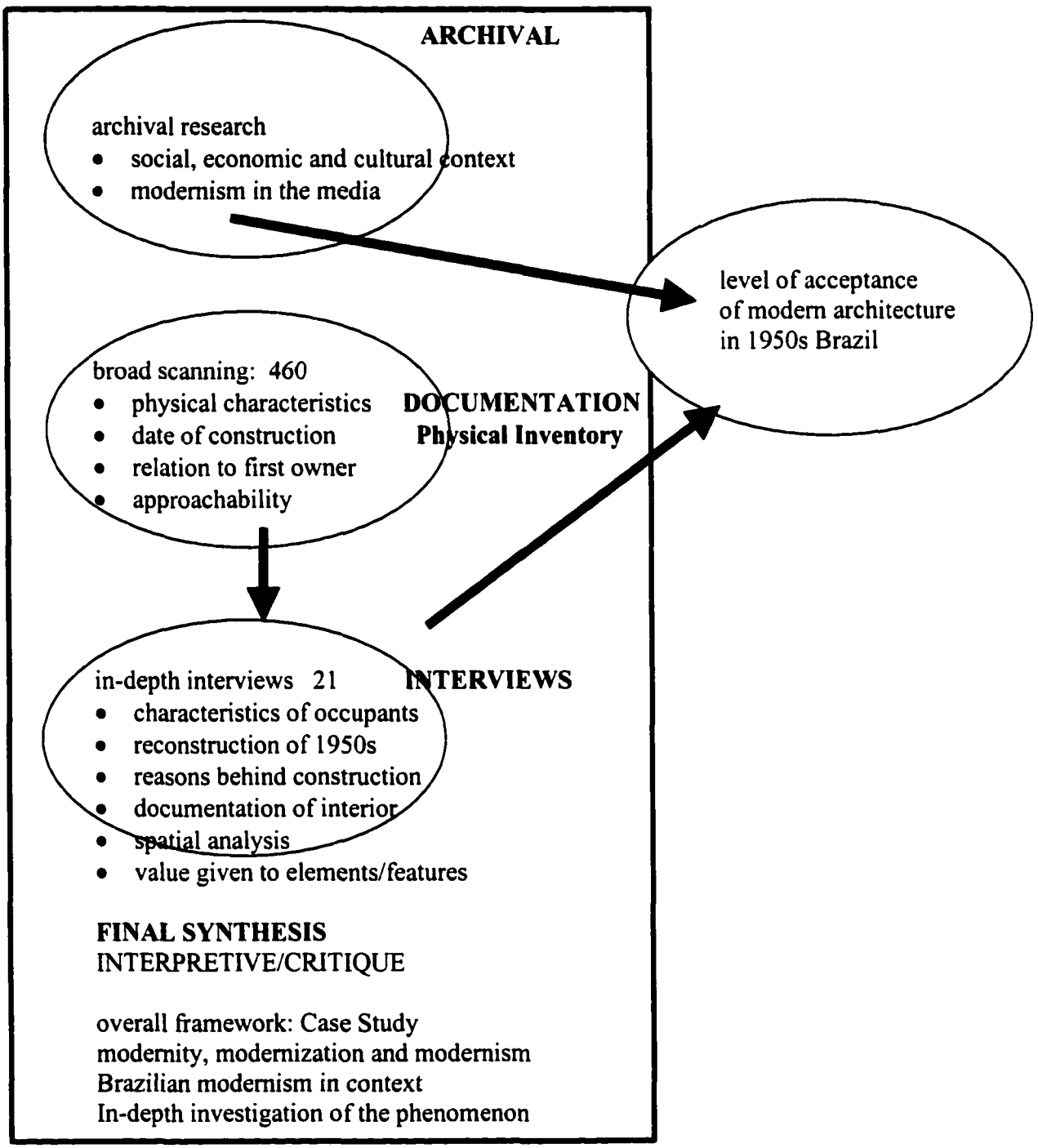
3) The in-depth interviews aims at bringing insights on **how** this phenomena happened i.e., what were the architectural and social dynamics that proved instrumental in giving rise to and sustaining this phenomenon of popular modernism?

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In terms of data analysis, the documentation provided material for an extensive formal and spatial analysis of the houses (in terms of the elements that determined their appearance and the interior configuration), while the interviews and archival research provided material for investigating how and why it happened. The description and discussion of each of those techniques is fundamental to the understanding of them separately (as a set of data collected) and combined (as complementary strategies), as well as for the desired transparency of the method. Following Yin, one of the strengths of the case study approach is precisely the potential accommodation of multiple sources of evidence converging in a triangular fashion (YIN, 1994:13). The diagram on the next page outlines the research steps involved and how they fit together in shaping the final product.

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The diagram below [Fig. 3.2.] summarizes the tactical data collection sources:



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Archival Data Source:

In order to be able to grasp the social meaning of Popular Modernist houses at that time and uncover the reasons for such an apparently strong desire for modernity, an interpretive approach was necessary.[1] Support for the assumption that there was a demand for modernization can be taken from the scholarly literature on Brazilian society of the 1950s (CARDOSO, 1977; FAUSTO, 1998; ORTIZ, 1995), as well as from the study of how houses were being represented in the media at that time. The main sources are taken from the bibliographical review of Brazilian history. But in order to better access the context of that time, I turned to the printed media, especially magazines. A quick review of some Brazilian publications of that time indicates that advertising of home furniture, equipment and related products were publicizing one kind



Figure 3.3. Niemeyer's work in Berlim depicted in *O Cruzeiro*, 1953.

[1] The Magazines were used as the main source of information for this part of the archival research because Television was just arriving in Brazil at that time and the radio, as well as newspapers, do not deliver the kind of images I was looking for.

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of "ideal" house to be built by the middle-class. This established the need for an extensive and methodical investigation of 1950's magazines. Five different magazines were chosen and extensively researched. With the help of two research assistants I looked through every issue of the magazines from January 1950 until December 1959, copying every page that referred somehow to architecture, being it reports, publicity or simply references. The five magazines selected were: *Arquitetura e Engenharia; Modulo; Casa e Jardim; Machete and O Cruzeiro. Arquitetura e Engenharia* was a professional publication in Belo Horizonte directed towards construction professionals with emphasis on technological advances both in architecture and engineering. *Modulo* was an architectural journal edited in Rio de Janeiro by a group of modernist architects led by Oscar Niemeyer, for years the only Brazilian architectural journal. *Casa e Jardim* (as the literal translation "house and garden" indicates) is a magazine concerned with the domestic built environment directed towards the middle and upper classes. It is still published monthly today. *Manchete* was a weekly magazine on varieties and news (a comparable American example would be *Life*), in press until a few years ago. *O Cruzeiro* was a more popular weekly magazine, very similar to *Manchete*, although perhaps a little more conservative and directed towards the middle class. It was the first Brazilian magazine to be published in color, the first to be widely popular, and was perceived as the barometer of the 50s in Brazil. About 500 pages were copied from these magazines and the detailed analysis of their content and the relationship with the architectural Popular Modernism follows in Chapter 5.

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Magazines were used to investigate the hypothesis that modernist design was portrayed as a key to a better future. The investigation of meaning construction at both the individual and the collective level in the Brazilian society of the 1950s is very important to the study of the Popular Modernism phenomenon. Both the interviews (at the level of the individual perception) and the analysis of media and governmental promises and ideals[2] (at the level of the social imaginary) were taken as fundamental components of my research. Such investigation is the basis upon which I may support (or dismiss) the assumption that the middle and lower classes were "thirsty" for modernity and acquired modernism as a way to fulfill its desire.

Documentary Source

Although popular modernism took shape to a greater or lesser extent throughout Brazil, this case study narrowed its focus to a single city for the sake of feasibility. As Yin points it out, the potential of a case study to generalize to theories is not compromised by its singularity. Moreover, the in-depth contextual immersion of a case study makes it an ideal framework for studying complex phenomenon (YIN, 1994: 13).

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[2] In terms of the analysis of the information collected, this dissertation followed the discussion of interpretive validity as presented by Tosh (1991). According to Tosh, newspapers and magazines are composed mostly "with a view to impact on contemporary opinion", and are, therefore, more reliable artifices to understand a certain era than later accounts.

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In addition, as highlighted by Groat and Wang, it is more important in this case "to uncover the very complex dynamics of one setting of interest than to limit the theoretical scope of the research by looking less deeply at more settings" (GROAT & WANG, 2001).

Inasmuch as the popular houses derived their salient modernist elements and spatial concepts from the canonical buildings of Modern Brazilian architecture, it was important to choose a geographical area that contains not only a sufficient number of middle-class modernist houses exemplifying the tendency being examined, but also a corresponding reservoir of telling exemplars of so called high-modernism. The degree to which the general public was exposed to the modernist aesthetic was expected to be an important component of the phenomenon to be analyzed.

Measuring the extent to which Modernist style was appropriated in middle class neighborhood is a crucial to component of this research. Supported by the Brazilian Federal Government and adopted by the emerging sectors of the urban society as the desirable image, modernist architecture was disseminated throughout Brazil as a result of exhibitions, competitions, commissions, urban

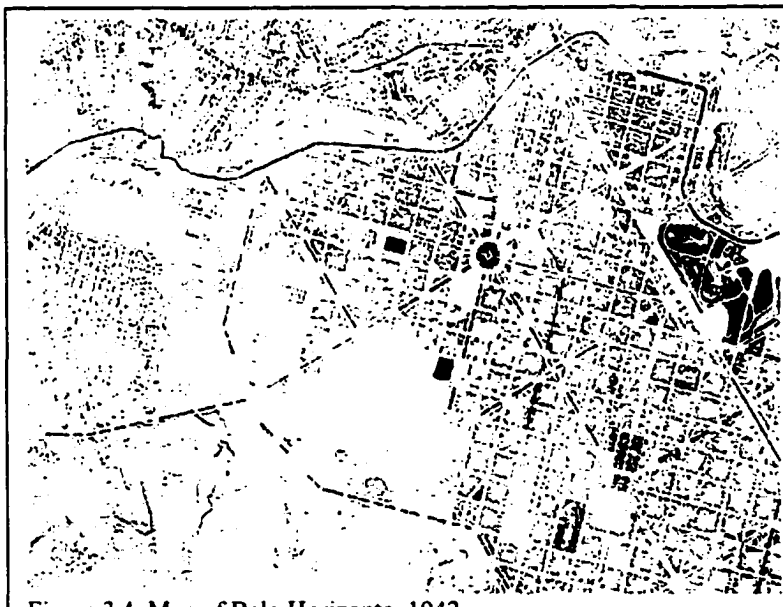


Figure 3.4. Map of Belo Horizonte, 1942.

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designs, interior shows and etc. Among those opportunities, a series of buildings were commissioned around Pampulha's artificial lake, in the city of Belo Horizonte. The designs of *Capela da Pampulha, Casa do Baile, Casino* and *Iate Club* became the paradigm for Brazilian architectural modernism for decades (see Chapter 2). Choosing Belo Horizonte as the locus of this case study research provide a powerful combination of the occurrence of paradigmatic modernist buildings and governmental support for Modern Architecture with extensive middle class developments in the 1950s.

Focusing on a single city allows a more careful construction of the research, in terms that are representative of both popular and high Brazilian modernism. I expected that direct contact of the population with these public buildings, and the polemic that they generated when built back in 1942[3], made the inhabitants of Belo Horizonte very much aware of modern architecture's vocabulary and aesthetics (as will be discussed in Chapter 5). Belo Horizonte is also a new city, planned and inaugurated in the last decade of the 19th century, to be the capital of the state of Minas Gerais (MAGALHAES, 1989; BARRETO, 1995). Among the ideas behind the design of Belo Horizonte we can highlight 19th century positivism and its emphasis on circulation, measurement and cartography. Architectural and urban historians have already documented and analyzed the geographical growth of the city. Based on those studies (MAGALHAES, 1989; LEMOS, 1995), I defined the geographical range to be scanned within the city. During the 1940s, the center and the southern parts of the city were already occupied by the

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3 The Pampulha buildings designed by Oscar Niemeyer were very polemically received in Belo Horizonte when inaugurated in 1942. Niemeyer, a member of the Communist Party and Mayor Kubitscheck were labeled Bolsheviks and Anarchists for "bringing such degenerate architecture into the city". When the national and international media arrived to see the famous buildings, and their subsequent international reputation ensued, the city population abandoned its conservative resistance, and before the end of the decade Pampulha was already the post-card of the city.

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wealthier groups, and the middle and lower classes lived along on the western, northern and eastern peripheries (LEMOS, 1995; LARA, 1996; SALGUEIRO, 1992). It is mainly in these neighborhoods, developed during the 1950s, where the examples of popular modernism are to be found. A series of neighborhoods outside and around the downtown area had been developed and were being occupied since the 1920s. The neighborhoods of Santa Tereza, Floresta, Lagoinha and Santa Efigênia were occupied mainly in the 1930s, and in those areas we find a few examples of Popular Modernism scattered among more traditional-looking buildings. The next wave of developments comprises the neighborhoods of Colégio Batista, Renascença, Carlos Prates, Prado, Barroca and Horto. In those areas, developed mostly in the 1940s and occupied in the 1950s, the phenomenon labeled here Popular Modernism thrived, and thousands of houses can be seen until today, 50 years after they were built.

Unpublished research by Carlos Noronha (NORONHA, 2000) suggested that such houses were built all around the city but that they were demolished or renovated in the wealthy neighborhoods during the 1970s and 80s. Few of these houses still remain in the wealthier parts of the city, and it is expected that the remaining ones are still occupied by their original owners, who are now elderly.

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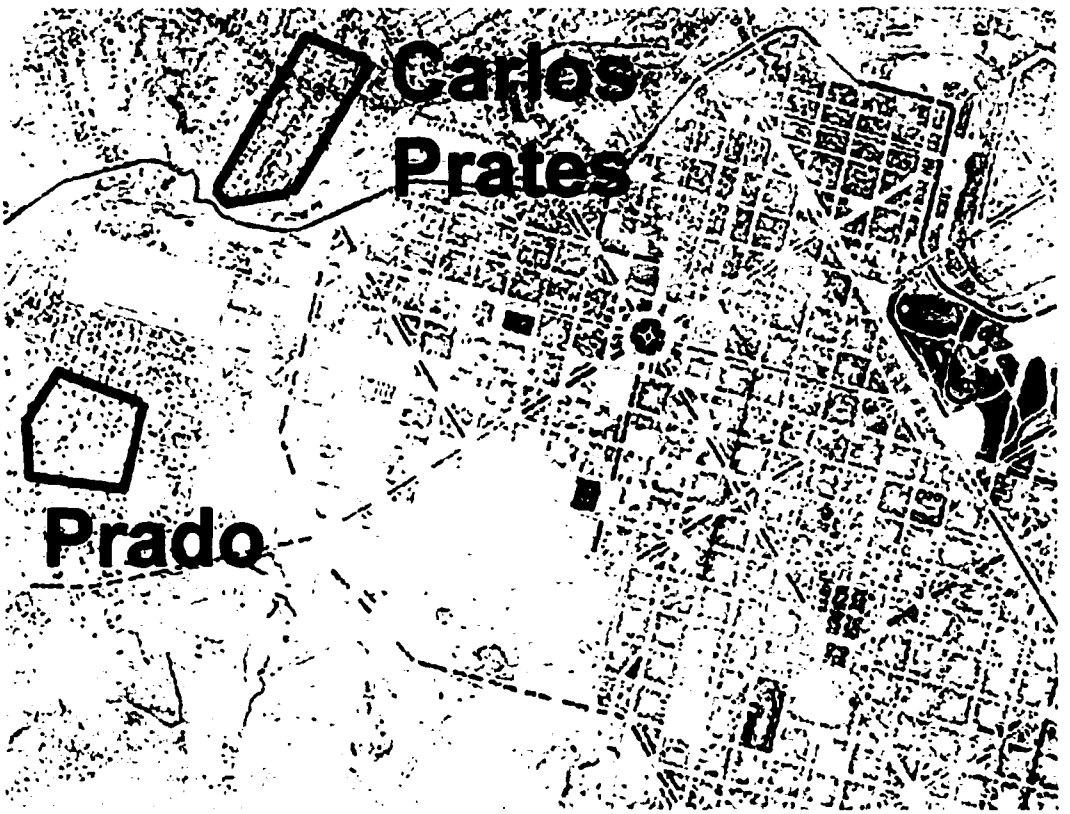
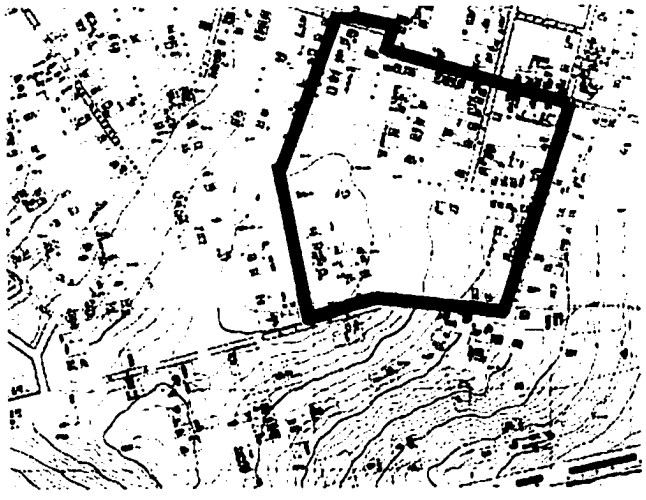


Figure 3.5. Map of Belo Horizonte in 1942 with the documented areas highlighted. Note the low density of Carlos Prates and even lower density of Prado.

Map 3.5. shows the extent of the city that was developed by the early 1940s. The two areas highlighted (west and northwest of downtown) are occupied by the middle-class and were chosen to be documented at this study. The presence of Popular Modernist houses in these areas is still very pronounced, and although some of those have had facade renovations (mainly changing surface materials), traces of their modernist compositions can be perceived.

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1942



1953

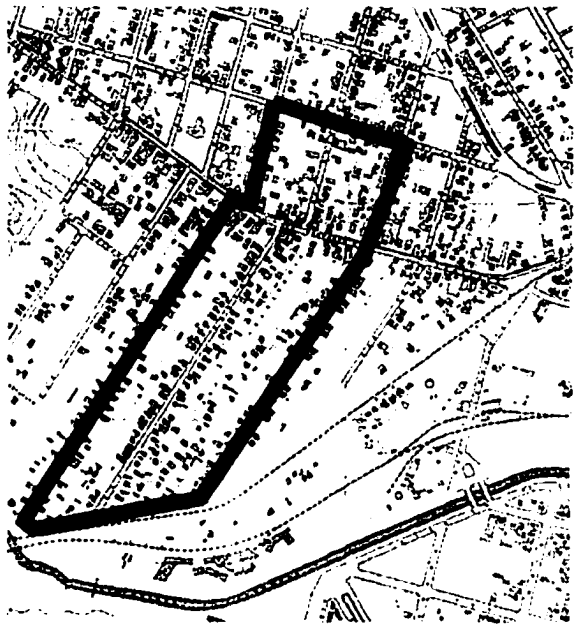


1967

1967

Figure 3.6, 3.7 and 3.8. Maps of Prado from 1942 (top), 1953 (middle) and 1967 (bottom)

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1942



1953



1967

Figure 3.9, 3.10 and 3.11. Maps of Carlos Prates from 1942 (top), 1953 (middle) and 1967 (bottom)

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The development of the Prado neighborhood [Figures 3.6, 3.7 and 3.8] began in the 1930s but its most intense development occurred after the late 1940s and through the 1950s. Located on the margin of the west axis of expansion (Avenida Amazonas), Prado attracted a number of military personnel of the lower ranks who worked in the military police barracks located on the north edge of the neighborhood. At that time a lower middle class area, Prado inhabitants have experienced an increase in their property values due to the good location, easy access and calm streets.

The other area chosen for this study, Carlos Prates [Figure 3.9, 3.10 and 3.11], was first comprised of large properties of immigrant families in the early decades of the twentieth century. By the early 1940s, those properties had been subdivided into lots sold by the original families, and by the end of the 1950s' the area was totally occupied. Originally a more valued neighborhood than Prado, the Carlos Prates area suffered devaluation due to its difficult access (across the railways and the Arrudas River), despite its proximity with the busy downtown commercial district.

Six blocks in each area were documented, constituting a total of 460 buildings. The extensive sample size for the physical inventory provided sufficient diversity of 1950s-era middle class housing. The methodology and the scope of the inventory followed a similar study by Vernez-Moudon in the San Francisco area (VERNEZ-MOUDON, 1986), modified to the specificities of this study.

Research assistants walked the streets with copies prepared from city maps derived from aerial photogrametric documentation done in 1992 [Figure 3.12]. For each building the research assistants took a photograph and completed a checklist (see checklist on Appendix A) to document the physical characteristics of each house. These

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included notations about the form, materials, elements and composition of the building. After the field documentation was done, the information on the checklist was coded (MILES & HUBERMAN, 1994) and organized in a computer spreadsheet (see Appendix B).



Figure 3.12. Fragment of map used by the research assistants during documentation.

From those 460 documented buildings, a sample subset of 50 houses was drawn to represent the full range of modernist and traditional styles. With the addresses of those buildings in hand, the original plans of 23 houses were documented from the municipal archives. [Figure 3.13].

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Figure 3.13. Inverted image from one of the microfilms retrieved from the city archives.

In-Depth Interview Source

In order to have a more complete understanding of Popular Modernism, this study incorporates a qualitative strategy to complement the interpretive strategy and its archival and documentary data sources. Differing from the physical documentation data that emphasized the building itself, the primary qualitative tactic was in-depth interviewing, intended to focus on the process of constructing and or renovating those houses.

Drawing from the sample of 460 buildings documented in the two areas, I was able to conduct 21 in-depth interviews with the inhabitants. The availability of the original house plans was an important factor in the choice of participants for in-depth

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interviews, as was the presence of an inhabitant who had lived there since the construction. Based on a number of precedent studies (GROAT, 1979; NASAR, 1994; STAMPS & NASAR, 1997; DEVLIN & NASAR, 1989), between 15 to 20 houses comprised the target working sample for the in-depth interviews. The buildings were chosen according to: 1) the extent to which they maintained original construction (little or no renovation); 2) the possibility of reaching the original owners or extended family; 3) the availability of documentation and/or permission for studying the interior of those houses; 4) diversity of wage and social status within the middle-class; 5) diversity of architectural style.

With those criteria in mind, a larger sample of 50 houses was pre-selected, and we were able to retrieve 23 microfilms with original plans from the city archives (see previous section on documentation strategy). Research assistants helped me schedule the interviews and accompanied me several times. Our first attempt to schedule interviews aimed at those houses for which we had retrieved the original plans, and we are able to conduct interviews with 17 of those households. This purposive tactic, as defined by Mertens (1998), was necessary due to the scarcity of original drawings from these areas in the municipal archives. Not every inhabitant was interested in being interviewed and in some cases we could not even contact them. The remaining 4 interviews were selected from the larger sample with the help of the people previously interviewed who recommended or helped us access their neighbors (a snow ball sample, as defined by Mertens). Although we had a privacy/confidentiality form explaining the use of the data collected, two interviewees did not give us permission to record the conversation and four did not allow us to photograph their houses. However, with the help of a history table

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(see history table on Appendix C) I was able to retrieve much of the important information from the inhabitants.

The history table was derived from Dina Battisto's dissertation proposal (BATTISTO, 1997), and was used mainly to guide the interview process and make sure important information such as age and occupation of the inhabitants were addressed in every interview. It also helped organize information about the house chronologically, since I asked about previous spatial configurations, and when and why modifications were done.

The whole in-depth interview usually took between 90 minutes and 2 hours. The main axis of the interviewing process was conducted around the investigations of the desires and demands of Brazilian middle-class at that time. Such interviews with the present householders (and with the original ones, if possible) aimed at documenting the ways in which the house changed in time, and at reconstructing parts of the original spatial configuration and function. These


Figure 3.14. One of the interviewees in front of her house.

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interviews were conducted mainly with people over 60 years old who could reconstruct fragments of their life in the 50s, from which inclinations for traditional or modern can be derived.

Phases of the interview	Technique used	Data Retrieved
Household History	history table	factual and demographic information
Values and Interpretation	questions on then versus now before and during walking tour	interview tapes transcripts
Interior Documentation	walking tour	photographs and sketches of plan configuration

Table 3.15. Interview steps, techniques and different data retrieved.

It is acknowledged that an interpretation based only on the values and beliefs of the 1950s would never be completely possible, since we already know (and cannot discard) all that happened since then. Most of our data collection tatics, research strategies and overall framework considered trends of present time and present interpretations. However, it is the task of the researcher to be suspicious of both the value judgments inherent in contemporary interpretation and the artificiality of reconstructing the past. It was important during the interview to try to make a distinction between the role and the value of those houses



Figure 3.16. Interior of one of the houses.

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in today's architectural realm as well as the differences (if any) from the value they had at the time they were constructed.

Most of the interviews took about a half-hour or so of recording time. In addition, the interior of the houses were documented for later analysis. A walking tour with the inhabitants gave me an opportunity to observe the value they assigned to each of the features. Extensive photographic documentation resulted from those walking-tours in the 17 (out of 21) households that gave us permission to photograph.

Quality Standards

The combination of different data sources allowed this research to build a consistent and coherent analysis of the Brazilian phenomena of Popular Modernism. Moreover, it allowed the research to touch all the major sources for architectural research: people, buildings and archives. The physical inventory was useful in defining **what** constitutes this popular modernism, and the maps resultant from the physical inventory helped us investigate the extent to which those houses were predominant during the 1950s. The documentation of interior configuration yielded material for the performance of a spatial investigation, analyzing the changes between the previous traditional houses and the popular modernist ones.

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The archival research provided insights into **why** they built it this way, in the broader context of Brazilian society of the 1950s. The ontological assumption of the interpretive analysis, in which knowledge is created by developing alternative interpretations of reality in order to understand the human condition (GUBA & LINCOLN, 1994), fits with the goals and objectives of this study. Since one of the main goals is the development of critical perspectives and discourses, the interpretive research strategy covered the idea of Brazilian modernity and modernism, the reasons behind the middle-class demands for modernity, and the social meaning of houses publicized at that time. Such a broad arrangement of interests conveys what Tosh claims to be a necessary intersection between "vertical" (diachronic) and "horizontal" (synchronic) relationships. (TOSH, 1991:116)

In order to achieve an in-depth, intimate understanding of the phenomena under analysis, bridging **what** was built with **why** was it built, a complementary qualitative research strategy was necessary (see previous section). The interviews with inhabitants, as well as observations of the interior and exterior of those houses, allowed the study to be referenced at the individual level of perception and meaning, and the specific facts involved with **how** it was built. It is understood that the knowledge that those houses represent is a socially constructed reality, a reality revealed by an in-depth understanding of the individuals that live or have lived in those houses. The qualitative research strategy fills some of the gaps uncovered by the interpretive and the formal/quantitative part of the research and contributes to a better analysis of the Brazilian popular modernism to follow in Chapters 4 and 5.

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Together, the combination of the interpretive and the qualitative research strategies enhanced the study of such Popular Modernism and contributed to a broader understanding of these phenomena. As Groat and Wang say, "mixed methodology models tend to present the greatest challenge for the researcher" as well as "the greatest pay-off". (GROAT & WANG, 2001)

In terms of trustworthiness of the research methods, Guba (1991) presents us four aspects that should are important in a qualitative / interpretive strategy: credibility, transferability, dependability and confirmability. The following table summarizes the treatments suggested by Guba for achieving the four goals during and after the inquiry.

Aspects of Trustworthiness	**Steps during inquiry**	**Steps after inquiry**
Credibility	Use prolonged engagement Use persistent observation Use peer debriefing Do triangulation Do member checks	Establish structural corroboration (coherence) Establish referential adequacy Do member checks
Transferability	Collect thick descriptive data Do theoretical purposive sampling	Develop thick description
Dependability	Use overlap methods Leave audit trail	De dependability audit (process)
Confirmability	Do triangulation Practice reflexivity	Do confirmability audit (product)

Table 3.17, Treatment of trustworthiness, adapted from Guba, 1991, p.83.

As proposed in the beginning of this methodology chapter, the methods for analyzing this particular phenomenon should reflect the complexity inherent in the problem. The proposed research program used a combination of strategies and tactics

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under a case study framework in order to better encompass the complexity of the issue and balance any inequality that should arise from a single methodology.

This dissertation research took advantage of this combined approach to maximize the strengths of each method and minimize their weaknesses (GUBA, 1991). The formal and spatial investigation focused on documentation, search for patterns, generalizations and schematizations. Methods of this kind have as their main strength the possibility of a broader generalization, as well as the possibility of independent reproduction of the research for posterior validation or refutation. In this study, this combined methodology also provided a "thick description" as suggested by Guba (1991:83). In general, a formal and spatial investigation carries the risk of over-simplifying, as well as not providing clues for how and why those discovered patterns happened. Failure to consider the different ways in which different people appropriate the same spaces and forms result in a generalization that limits the formal/spatial research techniques.

To avoid such research problems and to complement the addressing of the questions raised by the research, the interviews and the interpretive analysis of research findings provided an in depth understanding of the phenomenon. It also provided a way of testing some of the patterns that may arise from the formal/spatial investigation. Although qualitative and interpretive methods are not generalizable, a careful and rigorous peer review and literature review can minimize problems of validation and reliability. As an overall advantage, the use of a combined research methodology, or triangulation, reinforces the confirmability and dependability of the inquiry. As defined by Guba, confirmability and dependability are the result of overlapping methods and audit trail (GUBA, 1991: 83). This network of related concepts proves even more

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important when the subject of the research has a hybrid nature, since it allows the achievement of necessary validity in a plural and diverse context.

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CHAPTER IV

WHAT ARE THE HOUSES: Analyzing the Physical Characteristics

Walking around the streets of Prado, Barroca, Horto, Carlos Prates, Padre Eustáquio and other neighborhoods just outside the downtown area in Belo Horizonte, one cannot avoid noticing a certain repetition of architectural elements employed on many residential facades. The rooflines are often inverted inward. Innumerable concrete slabs float above the entrances supported by thin metal columns. Ceramic tiles in pastel colors cover most of the front surfaces of the houses. Shade and ventilation are very often provided by *brise-soleils* or void blocks cast in ceramic or concrete.

The insistent repetition of these elements was what first drew my attention to the phenomenon of "Popular Modernism." In fact, it needs to be said, that although I have walked around these neighborhoods for all my life, it was only after coming to Michigan that I realized that these elements abound only in Brazil.

This chapter analyzes the physical characteristics of those houses under study. Going beyond the visible external elements, this chapter compares the exterior features and the interior organization, in search of a set of relationships that help contextualize the building (as objects and as processes) into the Brazilian realm of the 1950s and the architectural realm of Modernism.

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In terms of methodological structure (presented on the previous chapter), this chapter deals with the documentation of the physical artifacts, including: field survey, photographs of interior collected during the interviews and the plans retrieved at city archives. The main idea is to analyze the facades and the plans in themselves and also in comparison to one another to give us a better idea of **what** the houses are.



Fig 4.1. Rooflines in Belo Horizonte.

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The Progressive Exterior: Analyzing the Facade

The documentation is the main source of information regarding the façade. A photograph of every building in the scanned area was taken and a questionnaire about external features was filled out. As discussed in the previous chapter, the format of the documentation research was similar to those developed by Devlin & Nasar (1989) Groat (1982), Nasar (1989, 1994) and Stamps & Nasar (1997).

As a general framework guiding the data collection and its analysis there is a dichotomy between modern and traditional features. To organize the features around the extremes of most traditional and most modern, the following table [Fig. 4.2] was developed, based on Devlin and Nasar's comparisons of "high" versus "popular" residential architecture (1989). It was necessary to adapt it to the Brazilian context. Derived directly from Devlin and Nasar's table are the classification of roof and windows by size and shape. Referring to international modernist vocabulary, those two features are clearly applicable to middle-class residences in Brazil.

But other features analyzed by Devlin and Nasar, such as the buildings footprints, do not make much sense in neighborhoods where lots are only 36 ft wide, dictating much of the building's plan and facade. At first, I thought that differentiation between vertical versus horizontal proportions did not make much sense, given the Brazilian narrow lots; but the formal analysis proved that it is indeed an issue, the modernist houses being strikingly more horizontal than the traditional ones. In addition, other elements such as

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façade material, canopies and columns were included due to their extensive occurrence on the houses documented and their significance in differentiating between the houses built before and after the 1950s.

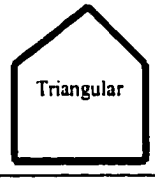
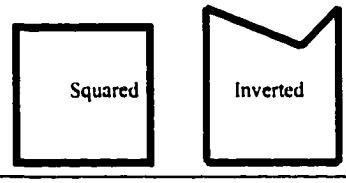
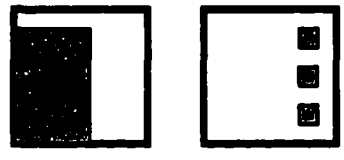
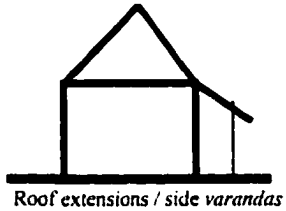
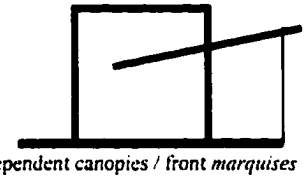
	Traditional	**Modern**
Roof / Volume		
Windows	 Medium and symmetrical	 Small or Large and Asymmetrical
Canopies	 Roof extensions / side *varandas*	 Independent canopies / front *marquises*
Orientation	Vertical 	Horizontal 
Columns	Wooden or concrete, wide	Metallic, thin
Facade Materials	Mortar / paint / decoration	Ceramic *pastilhas* or *azulejos*

Table 4.2 Traditional versus Modern main features. Adapted from Devlin & Nasar, 1989.

The documentation registered 460 buildings in the two neighborhoods investigated. Figure 4.3 shows one of the completed forms as done by the research

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assistants. All the information noted on the forms was coded and turned into a Microsoft Excel software spreadsheet (see Appendix B). From the spreadsheet I conducted a series of calculations and a descriptive percentage analysis to calculate the number and the occurrence of each feature.

A descriptive analysis of the information collected on the questionnaire shows that 57% of the buildings had a square or trapezoid overall volume (indicative of its modernist roots) while only 29% presented a triangular volume. But separating overall volume (taken as a whole as seen from the street) from the roof shape itself (when seen), the picture is somehow different. As many as 48% of the roofs were triangular, versus only 22% flat and 8% inverted. The key to deciphering this apparent paradox is that 22% of the roofs were hidden, and even some of the visible ones were behind a

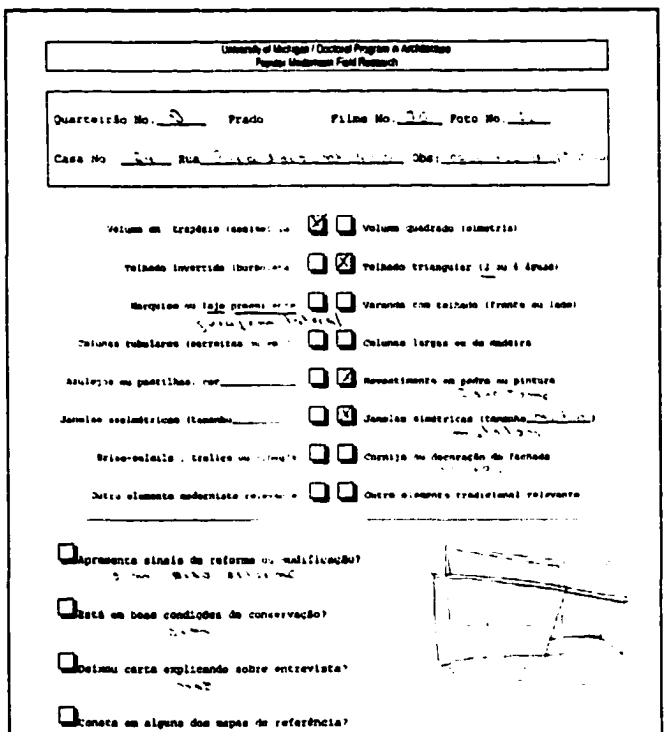


Figure 4.3. One of the 460 forms filled by the research assistants.

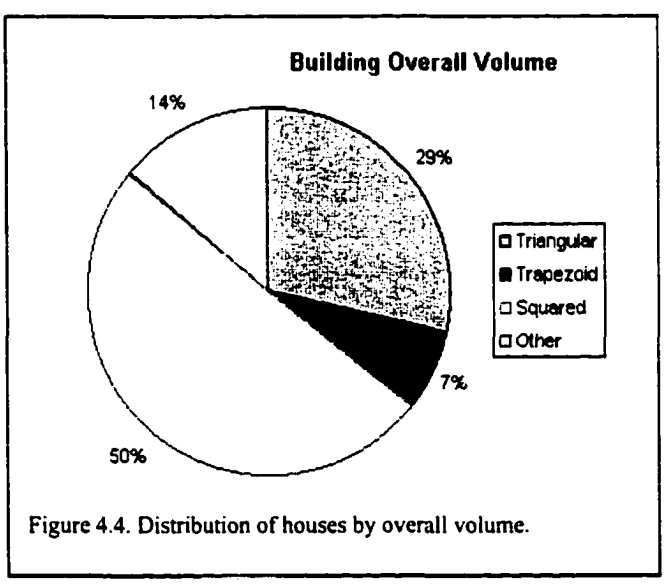


Figure 4.4. Distribution of houses by overall volume.

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squared cornice. That gives us the first pattern to be investigated: **while the overall volume and front shape is mainly modernist in its shape, that shape often hides a traditional roof.**

In terms of window sizes and symmetry, the data shows the predominance of medium-size windows (62%) versus small (23%) and large (15%) windows, organized half the time in a symmetrical way (49%) and half the time in an asymmetrical way (51%). When cross-compared with other elements being investigated, the medium asymmetrical windows tend to occur with other modernist features, while the medium symmetrical windows tend to accompany more traditional ones. Such coincidence is stronger in relation to façade material and columns, and less significant in terms of roof, volume and canopies. That gives us the second pattern to be investigated: **the windows of popular modernist houses tend to be asymmetrical as their high-design models, but have medium size rather than large or small dimensions.**



Figure 4.5. Difference between *varanda* and *marquise*.

Regarding the concrete canopies supported by thin metallic columns, the data indicates that the relation between those two elements is very high, for the majority of

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thin columns (66%) are supporting independent canopies (*marquises)* and only 30% of them are supporting *varandas*. On the other hand, when we look at occurrence of the wide columns, 70% of them are supporting *varandas* while only 13% of them are supporting *marquises*. It is important to explain at this point that the terms *varanda* and *marquise* have many times an overlapping meaning in colloquial Brazilian Portuguese. For the purpose of this study some clarification is necessary. *Varandas* are continuations of the roof while *marquises* are elements that are independent from the roof line (Fig. 4.5). Both determine covered spaces, the *marquises* tending to have no other enclosure than itself and the columns supporting it, and the *varandas* often times accompanied by railings or low walls (2-3 ft high) where you can sit. *Varandas* happen as much on the front façade as on the side, while *marquises* are rare on the side being predominately on the front. A few times, both *varandas* and *marquises* have been used as a garage, a space that was somehow a novelty in the early 1950s, but that would be indispensable after the automobile industry and market boomed during Kubitschek's presidency (1956-1960).

The occurrence of this combination of concrete slabs (*marquises)* and thin metallic columns is very important for this study since it is derived directly from the two most famous *Pampulha* Buildings, the *Capela* and the *Casino*. As will be discussed in the following chapters, the influence of *Pampulha* plays a fundamental role on the development of "Popular Modernism."

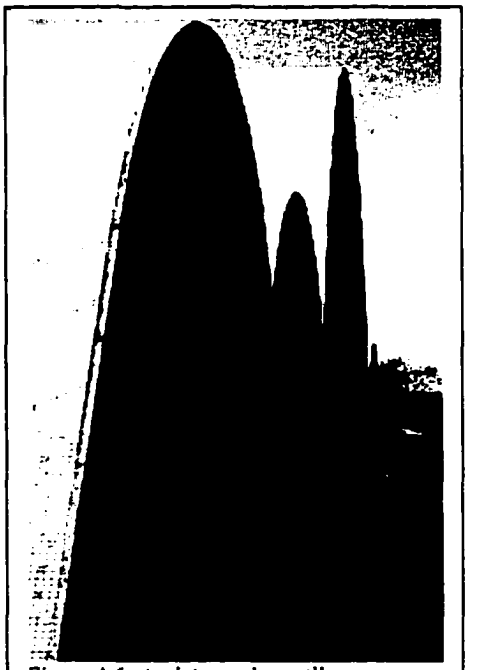


Figure 4.6. *Azulejos* and *pastilhas* at *Capela da Pampulha.*

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Another element derived directly from the *Pampulha* buildings is the *azulejo*. *Azulejos* are ceramic vitrified tiles, decorated or painted with strong colors, usually on a 15x15 cm size (6x6 inches). Used extensively in Portugal, *azulejos* appeared in some eighteenth-century churches in Rio de Janeiro and are the trademark of Alcântara and São Luis, in the state of Maranhão in northern Brazil. The name comes from the blue (*azul*) tone that predominates in ancient vitrifying techniques. Re-discovered by the early modernist generation, *azulejos* were then used on the MES building (1936-1940); and at *Pampulha* it becomes the main exterior material of *Casa do Baile*, *Capela* and *Iate Club*, also present on the interior of the *Casino*. On the undulating roof of the *Capela*, Niemeyer uses a variation of the ceramic tile called *pastilha* (chiclets) due to its small dimensions of 2x2 or 1.5x1.5 cm (3/4x3/4 or 1/2x1/2 inches). The vitrified ceramic of the *azulejos* work very well in the sunny and rainy Brazilian climate, resisting color fading, water infiltration and humidity with low maintenance-costs. With the smaller version, the flexibility for covering curved surfaces without complex cuts or skilled labor made the *pastilha* a trademark of Brazilian architecture of the 1950s.

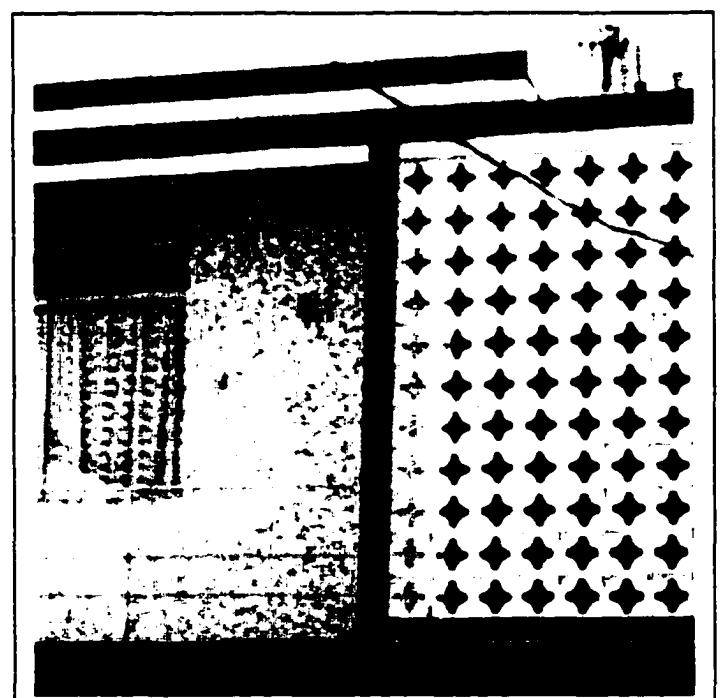


Figure 4.7. *Pastilhas* (left) and void ceramic blocks (right) in a documented house.

At the houses documented for this study,

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azulejos are the main external material on 30% of all the buildings (124 cases). As expected, the majority of the buildings using *azulejos* or *patilhas* have also *marquises* (49 %) when compared with the ones with *varandas* (38%). On the reverse relation, 53% of the buildings that have painting as the main external treatment have *varandas* while only 26% of them have *marquises*. Comparing with the overall volume, only 9% of the building with *azulejos* have a triangular (more traditional) volume, while the other 91% have squared or trapezoid volumes. *Azulejos* are therefore strongly recurrent in houses that have *marquises* and flat or inverted roofs.

Taking the presence of those elements as values, a numeric coding of the information presented on the spreadsheet was developed. The intent was to develop a gradation, from the more traditional houses all the way to the more modernist ones. Arbitrary values were given to each element present according to its importance and whether it represents traces of modernist or traditional styles. A value of 0 (zero) was given to the most traditional elements and values of 1, 2 or 3 given to the modernist ones according to their prominence and significance. The definition of which element is traditional and which is modernist was derived the overall features shown on table 4.2 and from comparing the modernist vocabulary of the Pampulha buildings with the vocabulary of 19th century neo-classical public buildings. The reason for not adopting a dichotomous 0-1 or yes/no set of values comes from the need to have a more complex set of values, a gradation rather then a binary opposition. The following table shows the numeric values given to each variable:

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VOLUME	ROOF	CANOPY	COLUMN	EXTERNAL MATERIAL	WINDOW SIZE	WINDOW SIMMETRY	SHADING ELEMENT	OTHER ELEMENT
Other = 0	Hidden by facade = 1	Varanda = 0	Thin = 1	Painting = 0	Small = 0	Asymmetric = 1	Void block = 1	Modern = 1
Triangular = 0	Triangular = 0	Marquise = 1	Wide = 0	Azulejo= 1	Medium = 0.5	Symmetric = 0	Pergola = 0.5	Traditional = 0
Squared = 1	Inverted = 3	Garage = 0			Large = 1		Cornice = 0	
Trapezoid = 2	Trapezoid = 2						Brise-soleil = 1	
	Flat/ terrace =1						Wooden trelice = 1	

Table 4.8. Values given to each element of the house's facades.

After calculating the coefficients for every one of the 456 buildings the final results were organized in four groups according to the higher number of modernist or traditional elements. Between 0 and 1.5 were grouped the more traditional houses. The hybrid houses with high influence of traditional styles were the ones in which coefficients stay between 2 and 3. The ones between 3.5 and 4.5 were classified as modernist hybrids, and highly modernist are the ones with coefficients higher than 5. The following maps (4.9. and 4.10.) show the geographical distribution of houses belonging to each group in both Prado and Carlos Prates neighborhood.

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Figure 4.9. Mapping of range at Prado

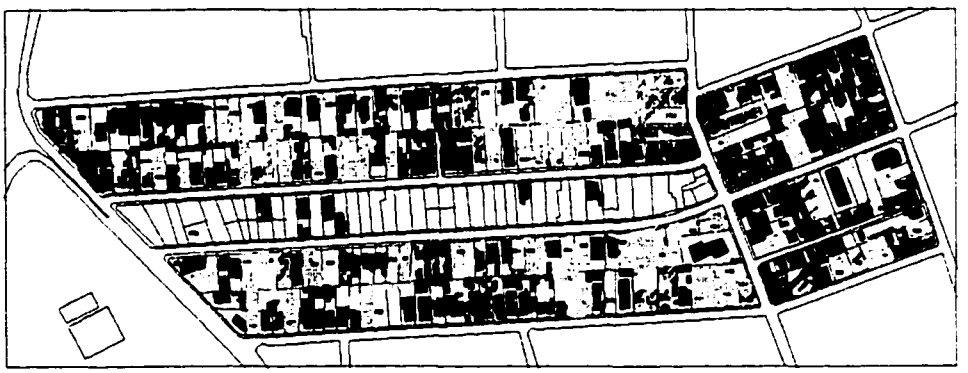


Figure 4.10. Mapping of range at Carlos Prates

The dark colors indicate the modernist houses, the lighter indicate the traditional ones. For a better printout of those maps see Appendix D.

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Façade Formal Analysis

In order to investigate the external configuration of the "popular modernist" houses, a series of graphical exercises and analysis were developed. The main objective was to formulate a pattern or a set of formal characteristics that would be used as a point of comparison. For the development of that pattern, 10 houses on the extreme edges of the spectrum were selected. Although at this point I selected the extremes of the spectrum for analysis, the whole middle range of houses are even more important. Since the formal analysis of all 460 facades would not be feasible in the scope of this dissertation, I choose to work with the extremes in order to know them all better. Their facades were brought into a precision drawing software (AutoCAD r.14) and a set of formal relationships were developed. Tables 4.11. and 4.12. show the addresses and the photographs of the houses selected.

NEIGHBOORHOOD	STREET ADDRESS
Prado	Safira 585
Carlos Prates	Rio Casca 571
Carlos Prates	Rio Casca 465
Carlos Prates	Rio Espera 446
Carlos Prates	Suaçui s/n
Prado	Cura d'ars 450
Carlos Prates	Uberlândia 118
Prado	Cuiába 424
Carlos Prates	Rio Casca 344
Prado	Cura D'ars 677

Table 4.11. The 10 most modernist houses

NEIGHBOORHOOD	STREET ADDRESS
Carlos Prates	Padre Eustáquio 241
Prado	Safira 386
Carlos Prates	Suassui 120
Carlos Prates	Suassui 44
Prado	Rubi 473
Carlos Prates	Rio Casca 510
Carlos Prates	Padre Eustáquio 230
Carlos Prates	Uberlândia 208
Prado	Rubi 522
Carlos Prates	Rio Casca 676

Table 4.12. The 10 most traditional houses

The photographs of the houses taken as part of the documentation research strategy were inserted into the AutoCAD environment and the main lines of volume,

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shape, apertures and other important elements were derived from the photo [Figure 4.13]. The following step includes the abstraction of those main facets into lines, differentiating overall shape lines (primary form elements) from fenestration and other secondary form elements. Those diagrams were than corrected to an orthogonal plane, since the photos are always a little bit off-centered, providing the final elevations diagrams [Figures 4.14. and 4.15]

Just from looking at the diagrams generated from the houses we can perceive a major difference. The modernist ones have a tendency to be asymmetrical and display inward-bounding roof slopes as defined in the previous section. We have to keep in mind that those are the 10 most modernist houses according to our classification, and that the majority of the residences under study are a hybrid variation of modernist and traditional features. In the traditional group of houses there is a predominance of symmetrical arrangements around the main volume, which also tends to be covered by a pitched roof.

But the presence of diagonals other than the roof slopes are a significant difference, as well as the asymmetry, especially in relation to the main volume. The form used in the documentation had no

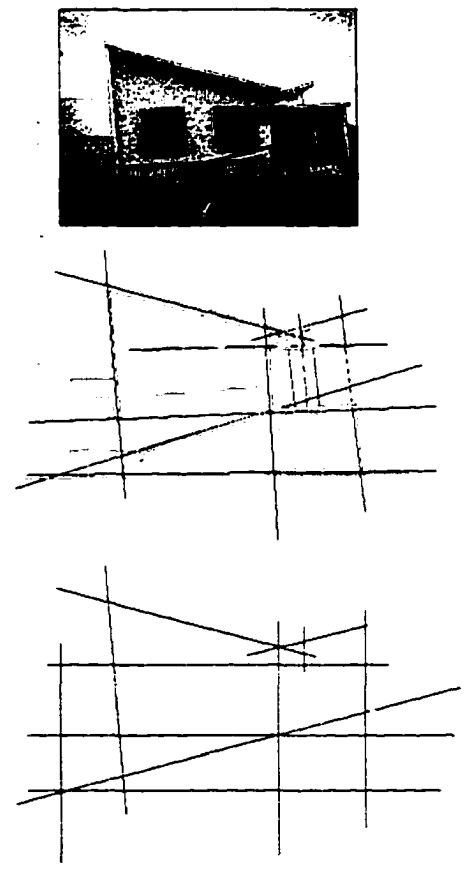


Figure 4.13. Diagram construction steps from photographs to main lines to orthogonal correction.

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criterion for diagonals versus straight lines, which consequently were not elements differentiated in the database after the coding process. Another striking feature that we can perceive from the diagrams is that the roof slopes are different from one group to the other and particularly similar inside each group of houses. The 10 most modernist ones have angles between 8 and 15 degrees (between 14 and 28%). The 10 most traditional houses have roof slope angles between 15 and 33 degrees (between 28 and 66%). This is an interesting calculation because roof slope is also not among the categories used to define the modern-traditional gradient. Therefore, one striking observation is that while the roof slopes are getting more flat the more we go into the modernist end of the scope, other diagonals proliferate on the facades.

Those other diagonals occur in ramps, canopies and vertical inclination of the front walls. While none of the traditional houses employ diagonals other than rooflines and street slope (below and above the composition only), the modernist ones have many diagonals in the middle of façade, while the upper lines (roofs) tend to be flatter. The occurrence of diagonals might be also derived from the modernist buildings at Pampulha, specifically the inclined canopy and inverted tower of the *Capela* (see Fig. 2.8). When looking at architectural magazines from the 1950s, such diagonals are present everywhere. Not only were Brazilian magazines full of diagonal lines, but much of the hotel architecture in California and Florida, for instance, present similar diagonal lines and signs, indicating that diagonals were a more global trend of the 1950s.

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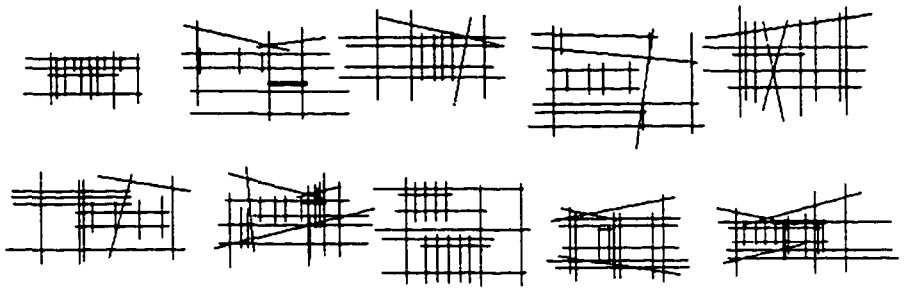


Figure 4.14. Diagrams of the ten most **modernist** houses

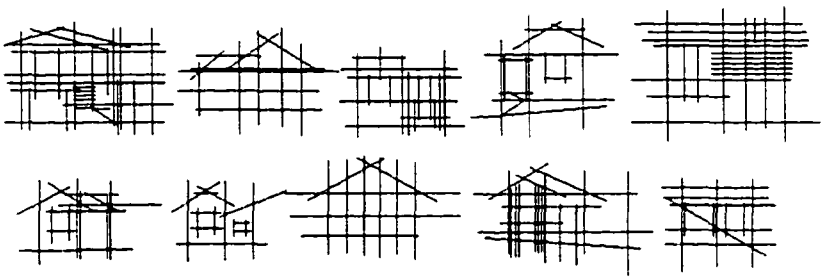


Figure 4.15. Diagrams of the ten most **traditional** houses

The matter of symmetry is also an interesting distinction between groups. As stated before and used as an classificatory variable for the gradient, traditional houses tend to have more symmetric arrangements while modernist ones tend to be less symmetrical. Such was confirmed by the diagrams, especially when we considered it in relation to the main volume. Figure 4.16 shows the overlapping of all the diagrams of the traditional houses by their main volumes, and the position of windows, doors and other apertures shows a strong emphasis around a symmetrical axis. Again, this cannot be considered a finding since it was used from the beginning as a differentiation value. On the other hand, when also overlapped by their main volume, Modernist houses emphasize a horizontal axis while traditional houses emphasize a vertical axis.

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Symmetry and asymmetry occur as expected in the modernist and traditional houses, but this horizontal versus vertical emphasis was not hypothesized due to the narrow lots.

As noted by Stamps and Nasar (1997), the emphasis on horizontallity is a feature of modernist "taste," while traditional styles tend to emphasize more verticality. Since the lots in both Prado and Carlos Prates neighborhood are very narrow, (36 ft / 12 meters wide usually) I thought at first that horizontality would not be an issue. The narrow lots would have prevented the houses from spreading horizontally, especially when compared with North American suburban "ranch houses.

The horizontality found in the overlapping diagrams, despite being limited by the narrow lots, reinforces the hypothesis of a popular absorption of modernist aesthetics. Even more strikingly, when overlapped by the inflection point of the roof (the point in which the roof planes changes, traditional houses maintain their verticality and modernist houses show even greater emphasis on horizontality. In the case of the traditional houses, the overlapping by the inflection

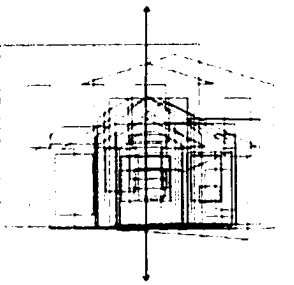


Figure 4.16. Overlapping of diagrams of **traditional** houses by their main volume

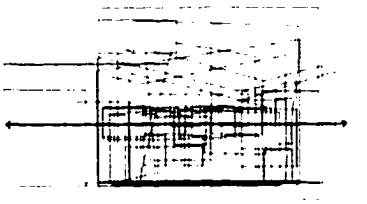


Figure 4.17. Overlapping of diagrams of **modernist** houses by their main volume

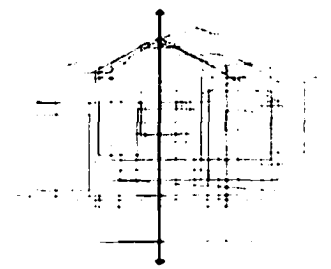


Figure 4.18. Overlapping of diagrams of **traditional** houses by *their point of roof inflection.*

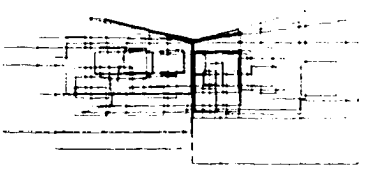


Figure 4.19. Overlapping of diagrams of **modernist** houses by their point of roof inflection.

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point coincides with the overlapping by the main volume, for the main volume is always covered by a pitched symmetrical roof [Figure 4.18.], reinforcing again the vertical axes of symmetry. For the modernist houses, the overlapping of the diagrams by their point of roof inflection highlights the similarity on the roof angles where two main diagonal axis are formed, but the fenestration is even more scattered and asymmetrical than before due to the variation on house heights and proportions.

One major discrepancy when compared with Stamps and Nasar (1997) is that no major difference was found in window sizes. As will be discussed on the following chapters, the need for privacy in a very dense urban environment and the high prices of any kind of glazing at that time might explain this. In wealthier neighborhoods (which also have larger lots) larger windows are the rule.

In summary, the issue of horizontal versus vertical orientation and the two distinct groups of roof slopes are two main differences that I did not expect before the analysis of this data. Other issues such as the thin columns, the inverted roof and the appearance of diagonals other than the roof lines, add up to convey a apparent "lightness" (upward diagonals) of the modernist composition. In contrast, the symmetry of the main volume, its vertical orientation and the triangular roof with its downward lines, all reinforce an idea of the "groundedness" of the traditional houses. Lightness of composition is one of the adjectives widely used to characterize Brazilian modern architecture, and I will return to the results of this formal analysis of the facades later

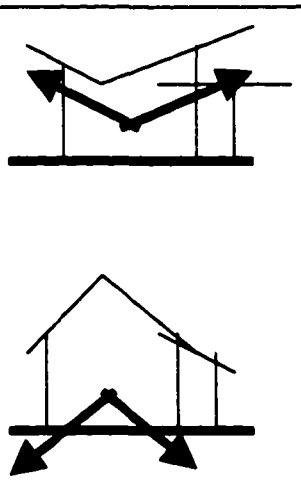


Figure 4.20. Lightness of modernism versus groundedness of traditional façade compositions.

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when discussing the relationship between the popular and the high Brazilian modernism on Chapter 6.

But in order to have a complete picture of these houses as the object of this study it will be necessary to go beyond the façade and move inside the buildings.

The Conservative Interior: Analyzing the Ground Plan

While the previous analysis of the facades were inspired by walking the streets and perceiving traces of modernism on the facades, walking through the front doors and observing the interior of the houses showed me something quite different. I was able to do so about 30 times, which accounts for 21 homeowners interviewed and another 10 or so that received me to provide general information about the neighborhood and refused to be interviewed.

The first impression was that the traces of modernity were kept outside. The interior of the houses, generally speaking, showed very little difference between modern and traditional ones, merging into one predominant pattern of layout and plan organization. Only in a small number of houses did the interior features match the modernism displayed on the facades. The great majority of the houses

Street	#
Cuiába	424
Cuiabá	626
Cura d'ars	128
Cura d'ars	548
Cura d'ars	630
Cura d'ars	640
Rio Casca	344
Rio Casca	465
Rio Casca	510
Rio Casca	526
Rio Casca	570
Rio Casca	571
Rio Casca	630
Rubi	465
Rubi	473
Rubi	532
Rubi	562
Turfa	485
Turfa	595
Turfa	603
Turfa	609
Turfa	619
Turqueza	678
Turqueza	679
Uberlândia	68

Table 4.21. Addresses of the 25 plans retrieved.

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had very similar interior configurations and furniture, despite having either a modernist or a traditional façade.

In order to understand this discontinuity between plan and façade, this section of this Chapter 4 analyses the plan and interior configuration to be combined later with the façade analysis.

The 25 plans I was able to retrieve from the city archives or from the inhabitants themselves were scanned and a diagrammatic drawing of the plan was made in AutoCAD. These diagrammatic drawings made explicit the room layout, room function, doors, windows and the lot boundaries. For the sake of comparison a different hatch was applied to the wet areas (kitchens and bathrooms) in one layer and to each use (social, private, eating, outdoors) in another layer. These diagrams were very useful for understanding movements and connections inside the house, and its relationship with the exterior areas. In another layer of AutoCAD a simpler diagram of rectangles representing only the rooms and its usage was created for comparison of functions, proportions and area ratios

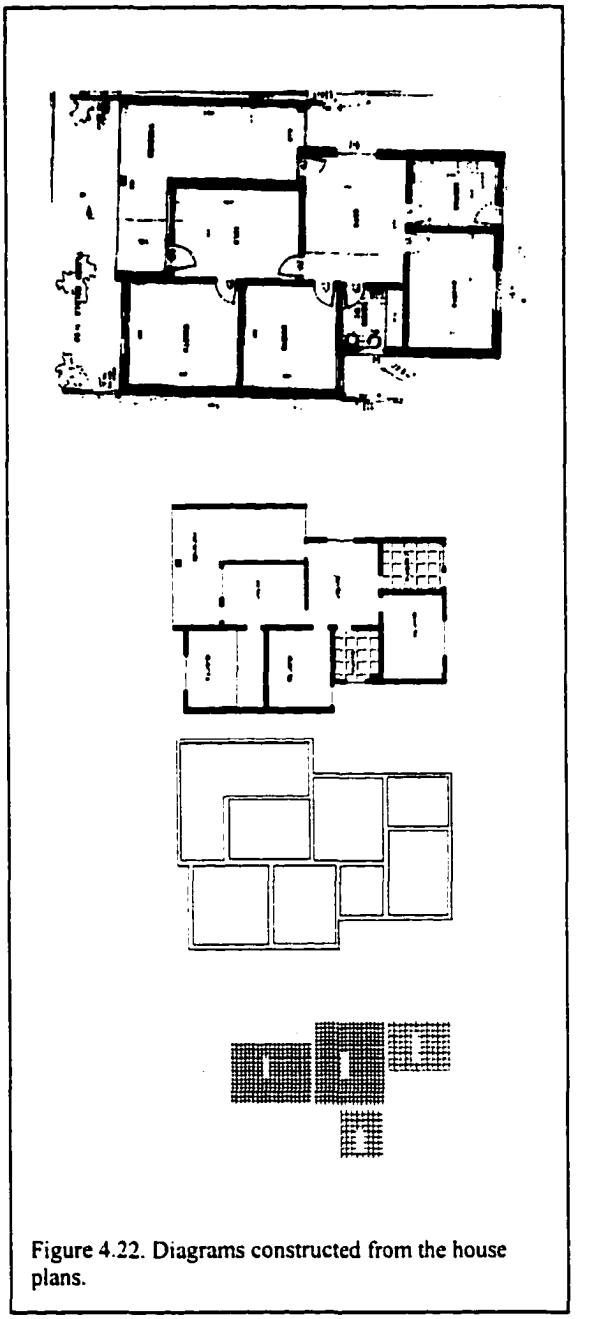


Figure 4.22. Diagrams constructed from the house plans.

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devoted to each use. An analysis of depth using Space Syntax calculations (HILLIER, 1984, 1996) tools was also done, confirming some of the issues hypothesized.

The space organization is very similar in all small houses, whether they are modernist or traditional. Usually, one enters through the *varanda* and proceeds to the living room. All the houses, small and large, had *varandas* or another kind of covered open space functioning as a transition between inside and outside. On the smaller houses, and it makes no difference if they have a traditional or a modernist façade, from the living room one proceeds into the dining area or into a master bedroom.



Figure 4.23. Some of the plans retrieved by the field research.

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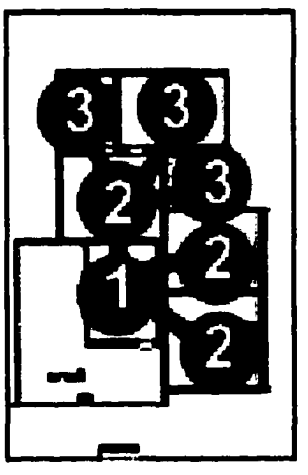
The insistent occurrence of this master bedroom connected directly to the living room surprised me, for this kind of layout seems to be a reminiscent of 18th-century farm houses. The Brazilian-Portuguese houses of the 18th-century had this arrangement in which the parents' bedroom would be very close to the main entrance in order to control their sons, and more emphatically, their daughters. The recurrence of this kind of room arrangement as late as the 1950s reveals how conservative the family organization still was. In one of the houses there was a second bedroom connected to this master bedroom, an arrangement typical of family control over their daughters, for they had to go through the parents' bedroom when walking in and out.

Continuing the path inside the houses, one would find in most cases the dining room as the next space, connecting then to the kitchen and other bedrooms. Only one very small house had no space designated as dining room. It needs to be highlighted that most families (even lower middle class ones) were able to hire a servant to clean and cook at that time. Not unusually, young women coming from the countryside and trying to made their way into the cities would work in exchange for board, and a nominal salary only. For that reason, most people ate every meal at home and family life revolved around those dinners. Moreover, the kitchen was perceived as a service space in which the family siblings were not supposed to stay or do any of the work. That explains the common occurrence of the dining room and the importance given to it that is highlighted by its central position in the house

Most houses had a small hall or circulation for distributing the access from the dining to the other bedrooms, but in the smaller houses this space disappears and the

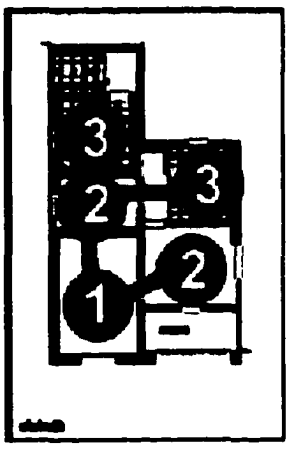
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bathroom and bedroom are reached directly from the dining room. An analysis of those smaller houses using Space Syntax tools generated the diagrams of figure 4.24 and 4.25. Those diagrams measure the depth of the spatial configuration, what can be used as a anagram for privacy. The more depth you have, the more privacy or more differentiation of areas. The less depth, the more the spaces are closely integrated and the less privacy. What those diagrams show is that both houses have very similar plan configuration in terms of depth. With little complexity and small depth, the spaces are very integrated, indicating little privacy and a small degree of space differentiation. The bedrooms are not the spaces further away from the entrance in both houses, but rather the kitchen. In addition, in both cases the dining room is the most integrated space, with 3 connections in the modernist case and 4 in the traditional house.



T= 16, m=2.28

Figure 4.24. Depth analysis of a small traditional house.



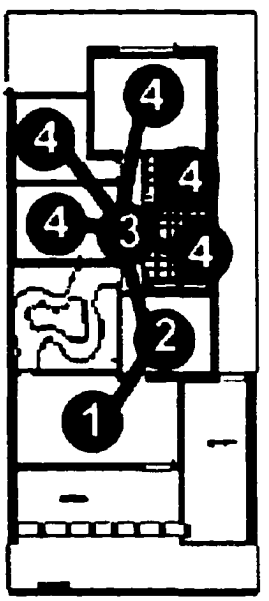
T= 11, m=2.2

Figure 4.25. Depth analysis of a small modernist house.

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In larger houses, however, some modernization on the ground plan is perceived. It is assumed that those larger houses, certainly built by families with better financial resources, would be somehow closer to the ideal house of that time. Interestingly enough, even in some larger houses the layout was very traditional, indicating that modernization on the interior configuration was not (as on the facades) a direct function of financial resources available. Diagram 4.26 shows the depth calculation of a large modernist house. The mean depth of 3.25 corroborates the issue of spatial differentiation, indicating that in average the rooms are 3 spaces away from the entrance. Much more privacy is allowed with this larger spatial distance from entrance to the bedrooms, which are the rooms further away. In addition, the corridor becomes the most integrated space with 5 connections in this case.

In large traditional houses I encountered the same pattern found on small houses, with the master bedroom connected directly to the living room, reinforcing the classification of this layout as a traditional one. The main difference regards a higher level of functional specialization, which is an immediate consequence of the larger number of rooms. In terms of privacy, despite having more rooms (and supposedly fewer people sharing bedrooms) no major difference can be perceived



T= 26, m=3.25

Figure 4.26. Depth analysis of a large modernist house.

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from the plans since many of the bedrooms open directly into the dinning areas.

On the other hand, in the large modernist houses, often designed by architects, one can perceive a stronger differentiation between different programmatic areas. Bedrooms tend to be located on the back of the house, accessible by a corridor and completely separated from the dining areas located midway and the living spaces up front. It is important to note that although those houses are larger, the lots have the same narrow width, which inevitably calls for a more linear arrangement. Only houses located in a corner, and therefore on a more squared lot avoided the linearity. In one large modernist house, however, a very traditional layout was surprisingly found behind a very modernist façade [Fig. 4.27.]. In this case the house had a very traditional layout, very similar to the organization of smaller houses, and a modernist façade with inverted roof and thin steel columns, very much representative of the paradox under scrutiny. The Space Syntax depth calculations show a mean depth of 2.33, much closer to the small houses. That means that despite the number of spaces (it is a large house), the organization is very simple

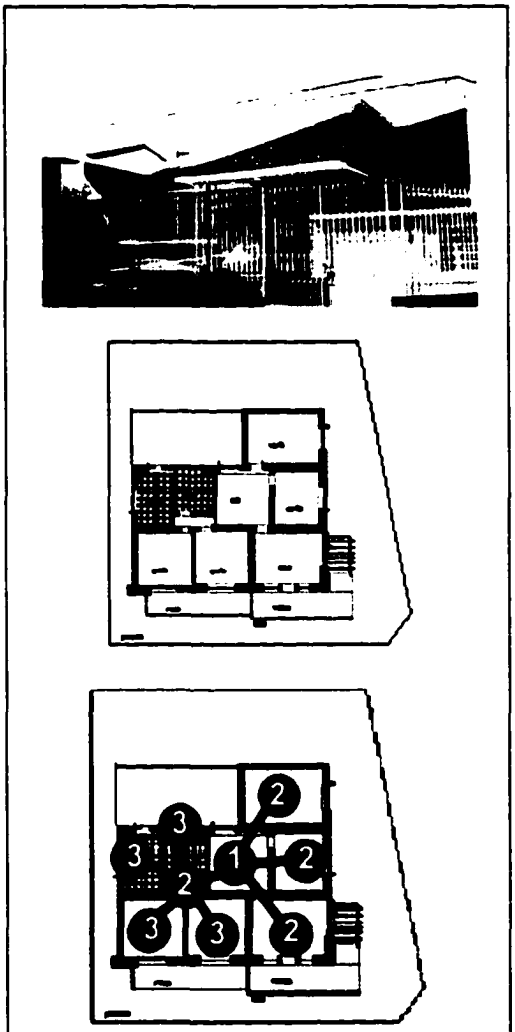


Figure 4.27. Large modernist house with traditional plan organization.

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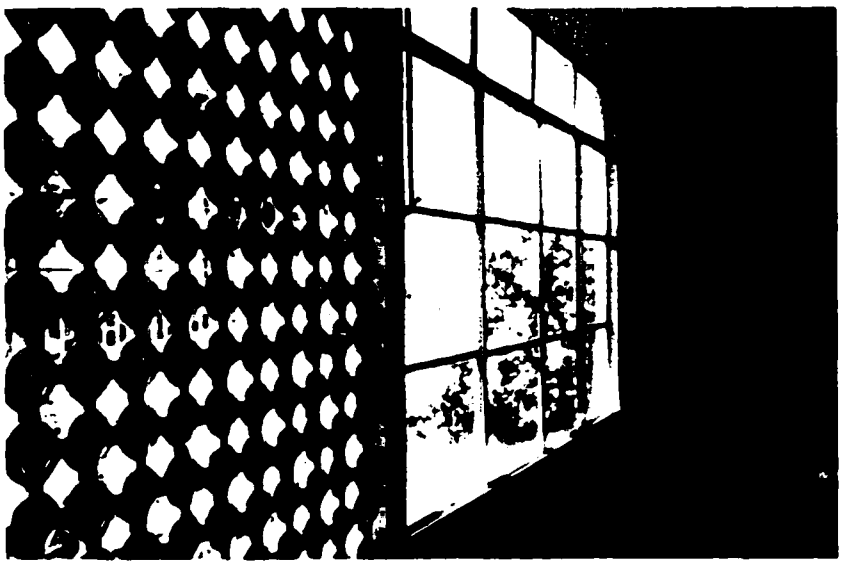
and the privacy level close to houses much smaller. Given the very modernist façade, this house is surely a fine example of the complexities of Popular Modernism.

In most of the houses, a striking facet emerges: the lack of privacy in the interiors of the houses with most rooms opening to the living room or the dining room. The bathroom also opens in many cases directly to the dining or living areas, with no hall or circulation differentiating the private from the more public spaces inside the house. This feature was found in all the small houses and all the traditional houses, leaving only a few of the larger and more elaborate modernist ones as exceptions. At the same time, the houses are quite well-protected from the outside with medium size windows and other devices that control shading but also allow increasing privacy. Another issue derived from the analysis of the plans to be carried on to the next Chapter is this issue of privacy as a concern in relation to the street, but not in relation to the individual quarters. One possible explanation, to be further discussed in the next chapter, is that the middle class of the 1950s wanted family privacy, but not individual privacy.

Adding to this issue of privacy, it is possible to perceive that when organized chronologically (the plans retrieved from the city archives have a dated stamp of approval), the plans shows a gradual tendency towards individualization of room function. The houses of the early 1950s tend to have simpler plans, no garages, no circulation hall, and usually bedrooms linked directly to living and/or dinning areas. On the other hand, the houses of the late 1950s tend to be more differentiated in terms of private versus public regions, and have more elaborate plans. However, the large number of exceptions to both trends (elaborate older houses and simple new ones) reinforces the

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idea that the main factor behind the modernization of the plan is availability of financial resources since the larger houses clearly took the lead regarding innovations.



Figures 4.28. Interior snapshot of one of the houses interviewed.

Into The Houses: Furniture And Objects

There are many reasons why furniture does not play a very important role in this analysis of popular modernism. The main one is that 50 years is too long a time for chairs, tables, sofas and other home objects to survive. They are also more prompt to undergo changes due to fashion and family life cycles. Furniture was not expected to play a major role on this research because it would be too difficult to reconstruct how the house looked in the 1950s based on what we see now. In addition, for most architects,

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furniture is seen as a secondary design issue compared to the buildings themselves. For all those reasons the documentation and the analysis of furniture was not included in the original research design.

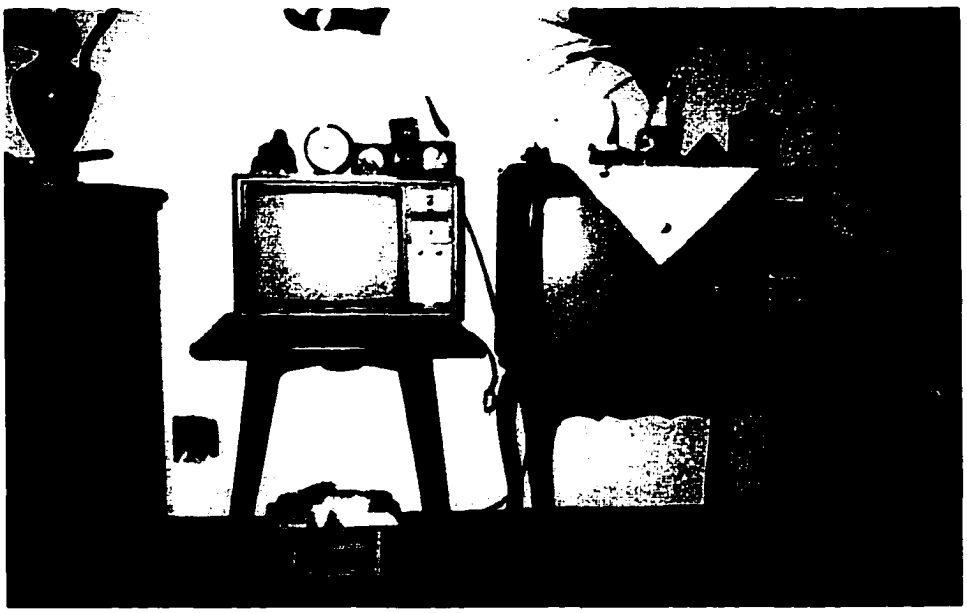


Figure 4.29. Objects in the interior of one of the houses interviewed.

But after entering around 30 houses to interview or talk to the inhabitants, I feel the need to mention at least some issues of furniture. When I asked permission to photograph the houses (which 16 of the interviewees granted), I was focusing the camera more towards materials and fixed features like kitchen counters, toilets and other building details. But looking now at the pictures, I believe the furniture can raise a series of issues that may complement the information retrieved from the building materials.

In general, the interiors vary a lot, depending mainly on the wealth of the families. Smaller houses tend to have very simple interiors with pieces that are straightforwardly utilitarian and little decoration or aesthetic concerns, while larger houses tend to be better furnished with more elaborate and elegant pieces.

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It also varies a lot depending on the age of the inhabitants, for the older they are, the older their furniture tends to be. In many houses, due to the advanced age of the inhabitants (the majority of them widowed women), the furniture is old but generally it is still in good shape, extremely clean and disposed carefully around the house. The combination of the owner's age and wealth can be very much inferred by their furniture, since the ones in a better financial situation have already replaced most pieces, conserving only the ones with high aesthetic or sentimental value.


Figure 4.30. Example of modernist furniture.

Some of the pieces seen are representative of the 1950's design, (i.e., thin legged chairs and beds; or decorated closet doors) and this is the main reason for writing this brief analysis of the furniture. As is the case with the typical image of 1950s furniture in Brazil, the issue of lightness comes to our attention. These modernist pieces make use of new (and lighter) materials such as stainless steel and aluminum that substitute for thicker wooden parts; and a variety of new fabrics, usually in bright colors, are used for cushions and sofas. While the thin legs of beds and tables remind us of the lightness of façade compositions already discussed, the colorful fabrics that occurs frequently on the advertisements of that decade will be discussed later in Chapter 5. The introduction of new metallic materials not only reflects a international trend in design but also reflects the efforts of Brazilian industrialization of those times.

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Figure 4.31. *Azulejos* used in the interior / kitchen

In bathrooms and kitchens, extensive use of ceramic tiles *(azulejos)* is present not only on the walls but even in bathtubs and counter's columns and frames. It is important to note that everything was made to last the rest of their lives, while at the same time the cost of labor was not an important issue. Therefore bathtubs and counter are not ready-made pieces but instead carefully constructed in site. On the floors, the combination of marble and granite fragments *(marmorite)* is very common on dining and circulation areas. This kind of floor was also cast in place and is still famous for its durability and low maintenance, despite being substituted by wooden laminates and marbles in current media images for the middle class.

But even more common than the marble or granite fragments used on the interiors are the ceramic tile fragments used on exterior areas. Put together with colored cement and used in bright primary colors, those ceramic fragments are a trademark of this 1950's residential architecture in certain Brazilian areas. The wide combination of colors, the

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low price, and the extreme resistance of this kind of floor covering made it very popular for open areas where precise leveling was not an issue. The easy combination of colors achieving a bright effect and the relatively unskilled labor required to cast it in place made the tile fragments a huge success on outside paved areas.

In general, more conservative furniture dominates the scenery, with a few pieces remaining from the 1950s. Given the advanced ages of the inhabitants, I did not expect anything less conservative or a larger number of 1950s pieces. But the combination of a few modernist pieces (which probably were more numerous at that time) with a few even older pieces brings up again the issue of hybridity between modernism and tradition. Since families tend to keep furniture that has aesthetic or sentimental value, replacing the more ordinary pieces, it should not be different. Yet, the arrangement of bedrooms and living rooms do not differ much from modernist to traditional houses. Therefore the furniture is a very good indicator of age and wealth of the inhabitants, but tends not to match either the modernist nor the traditional façade and/or plan.

As will be discussed in the next chapter, the full modernization promulgated in the media and advertisements seems distant and too advanced for that generation. Rather, modernization seems have been adopted only in fragments. The main question then becomes why did the residents adopt such a modernist façade?

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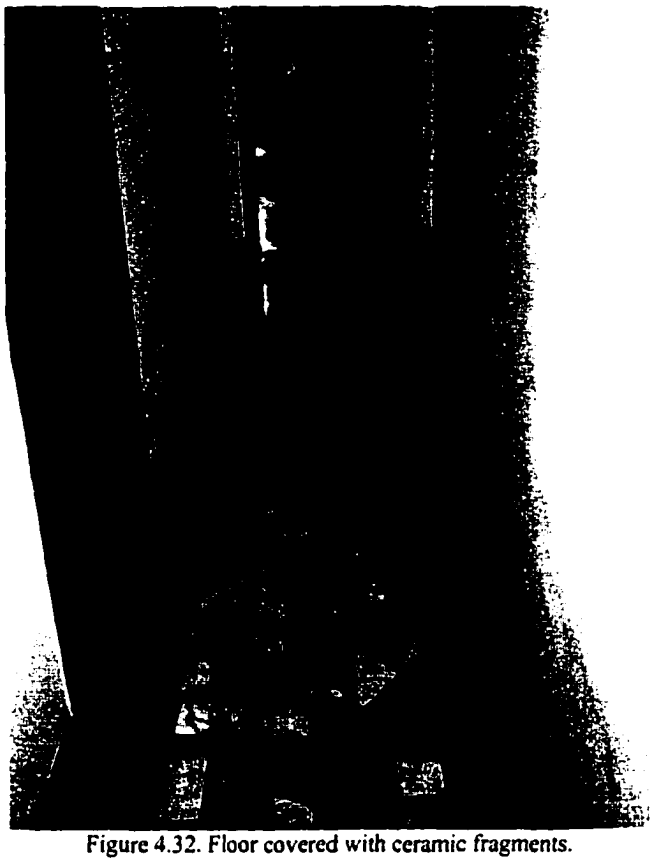


Figure 4.32. Floor covered with ceramic fragments.

Plan Versus Façade: Modernism Versus Tradition

This chapter has been aimed at defining the physical characteristics of the houses that are the object of this dissertation. In doing that, it was necessary not only to analyze the modernist houses but also the traditional ones, in order to investigate the main difference between those groups. In summary, it aims at defining **what** exactly the popular modernist houses are and what characteristics make them unique.

In terms of the façade, the descriptive analysis in this chapter, based on the documentation part of the research, found that the great majority of the houses are

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somehow a hybrid between what would be a pure modernist and a pure traditional composition. The formal analysis, conducted on the houses that represent each group the best, found striking differences in terms of symmetry, compositional orientation and overall organization of lines, in what I have labeled lightness versus groundness in its composition.

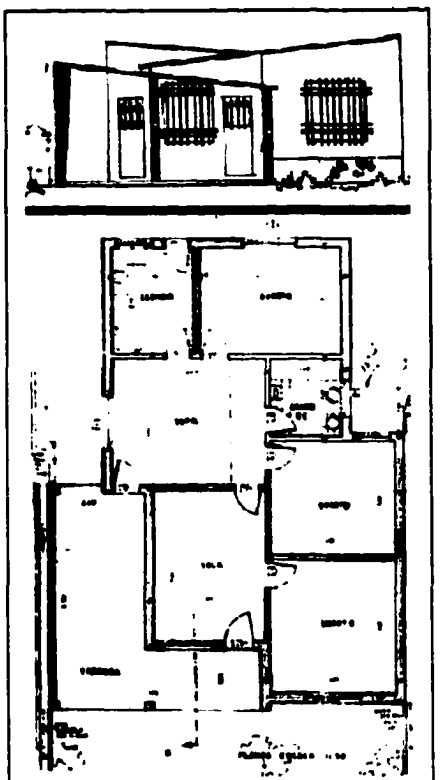


Figure 4.33. A modernist façade with a traditional plan. From original drawings retrieved from city archives.

However, when analyzing the plans and the interior of those houses, the differentiation becomes blurred. As hypothesized, the plans of the houses do not change accordingly to their modernist or traditional façade. The great majority of the houses present a plan very similar to the most traditional ones, with minor variations. The depth calculations also support the idea that the plan organization are very similar for the small houses, independent of their facades being modernist or traditional. The only exceptions are the few larger modernist houses designed by architects or engineers that occur in the area documented.

The dislocation between interior and exterior is evident when, looking at scattered photographs of the interior or at the individual plans, it is virtually impossible to anticipate the design of the exterior facade. This dichotomy between a progressive façade and a conservative plan is one of the main questions to be addressed later in Chapters 6 and 7. But what the analysis of physical characteristics already indicates is that it is not a simple dichotomy between a modernist exterior and a traditional interior.

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Many layers of modernist elements and traditional ones overlap, giving the popular modernism phenomenon a more complex and problematic set of relationships. *Azulejos*, for instance, are extensively used on the facades and also very much present on the interior, in bathrooms, kitchens and fragmented to form the pavement of open areas.

The main question to be formulated from this analysis of the physical characteristics will be addressed by the subsequent chapters: **why** and **how** some features are adopted as icons of modernity while other features are maintained as important links to tradition. If the plans, when organized chronologically, show a slowly and meandering evolution towards individualization and specialization of spaces, the façade composition seems to have turned quickly and straight to modernism around the early 1950s. The contextual scenario behind it and the intimate perception of those unparalleled transformations are the content of the following chapter.

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CHAPTER V

HOW AND WHY IT HAPPENED: Analyzing the Context And The Inhabitants

The analyses in this chapter are based on archival research and the in-depth interviews conducted during the field research, in order to ground the formal analysis (discussed in Chapter 4) into the Brazilian context and the inhabitants' perspective. The archival research includes media discourse, governmental policies and scholarly literature for the Brazilian context of the 1950s. In addition, in-depth interviews were conducted with the inhabitants of 21 houses.

Regarding the Brazilian context, this chapter relies on a scholarly literature that is older in terms of historical, developmental and political accounts of the 1950s, but much newer in terms of private life history and the middle-class role. In terms of media discourse, this chapter uses the publicity in magazines as collected by the field research, to discuss the role of modern architecture as a desired icon in advertisement. The in depth interviews conducted with 21 inhabitants of the documented houses provides insights into

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their experience of that period and problematizes the assumptions derived from the archival material and the scholarly literature.

One of the main ideas of this chapter is to provide a complementary argumentation to the previous chapter that deals with the physical characteristics. By adding one chapter to the other, this dissertation aims at validating those findings that are revealed by multiple sources. In addition, some issues do not cross from the physical buildings into the Brazilian context and vice versa. The current and the previous chapter are, therefore, inseparable since the discourse being constructed depends on the interaction between them, which will be the basis for the discussions of the chapters that follows.

Brazilian Context of the 1950s

The beginning of the decade was marked in Brazil by Getúlio Vargas' return to power in February 1951, this time by popular vote. Deposed in 1945, Vargas retired to his farm in São Borja, southern edge of Brazil, in a kind of self-exile. Democratic elections were called in 1946 and Eurico Gaspar Dutra was elected, governing with relative stability until 1950. During Dutra's government, Getulio Vargas was out of Rio but was never completely out of politics. He maneuvered through the various pre-candidates and apparently supported many of them, only to re-appear as a populist alternative, sweeping the election with 48% of the votes in October 1950. The second

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Vargas government was marked by an even more divisive struggle between the organized working class on one side (manipulated through unions very much tied to Vargas himself) and a traditional elite on the other pushing for fewer labor benefits while demanding state subsidies and protection. (SKIDMORE, 1999; FAUSTO, 1998)

According to Brazilian historian Boris Fausto, the second Vargas government presented a continuation of the conservative modernization of the 1930s, with efforts being made on industrialization and infra-structure but not on reorganizing class, race and gender. Robert Levine reminds us that "little was done to provide needed housing and improve public health", among other basic services that were not being delivered to the lower classes (LEVINE, 1998: 44). Despite efforts in fighting illiteracy, higher education remained restricted to the elite, maintaining the high levels of inequality for which Brazil is still famous (FAUSTO, 1998:357).

Meanwhile, new demands were pressing for deeper reforms in the state bureaucracy, especially against corruption that was attached to Vargas' personalized way of governing, handling on his own the difficult balance between different political forces. The centralized government that he had implemented 20 years before was collapsing under regional and social differences while the opposition grew with Carlos Lacerda emerging as a conservative radical leader. In 1954 a series of violent confrontations culminate with an attempt to kill Lacerda, attributed to a member of Vargas' personal security. Facing the need to change the populist/nationalist tone of his program, losing support of congress and unable to control his own inner circle of assistants, Vargas committed suicide on August 24th, 1954. Such a gesture added to Vargas' image as "father of the poor" and neutralized the ambitions of Carlos Lacerda, whose political

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career would be forever stained, transforming Vargas into a martyr. As many Brazilian historians point out, Vargas' suicide masked some of the country's divisions and would delay for 10 years the ideological split that led to the military coup in 1964 (FAUSTO, 1998; SKIDMORE, 1999). Vice president Café Filho led the government until the end of the term and a turbulent election occurred in 1955.

Amidst rumors of a military coup and a very divided political campaign, Juscelino Kubitschek was elected with only 36% of votes. Lacking a majority, he would strike a difficult balance with congress all the way through his term. A medical doctor by training, Kubitschek had been governor of the state of Minas Gerais and mayor of Belo Horizonte, known there as the "hurricane mayor" for digging, paving and building through the whole city. Among those projects, the building around the artificial lake of Pampulha, designed by Oscar Niemeyer, would become the paradigm of Brazilian modern architecture. As the governor of Minas Gerais, he developed his fame of "builder" even further. In his political biography he noted that visiting Canada and the U.S. Mid-West he realized the power of roads and transportation as a catalyst for economic development



Figure 5.1. Juscelino Kubitschek and architect Lucio Costa in Brasília, 1957.

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(KUBITSCHEK, 1976: 150). Despite having a complex and unstable alliance in congress, or perhaps because of that, his presidency was marked by the acceleration of industrialization, with the automobile as a symbol, highways crossing the continental distances of the country, and the construction of the new capital, Brasilia.

In summary, Kubitschek put forward a program of national-development, marked by import substitution and state investment in infra-structure, guided by the *Plano de Metas* (goals plan) that established Brazil's priorities. (FAUSTO, 1998:426)

From 1950 to 1959, the country had grown in population (2.3 % a year average), in economic terms (5.9 % a year average) and also in foreign debt. By the end of the decade, Brazil's population was 64 million people, 13 million more than 10 years before. Changes were evident in urbanization, education, and a new middle class which grew in importance and established its power. But a paradox is evident in the Kubitschek government. The relative stability was achieved while maintaining a continuous development and a generalized optimism (BENEVIDES, 1981) - an unstable balance that had two very different roots. The basis of the continuous growth was the opening for foreign investment; while the basis for the optimism was the emphasis on nationalist ideals. That difficult balance between nationalism and the need for foreign capital would be the basis of the political crisis of the early 1960s.

However, Kubitschek was able to maneuver throughout his term and left office under strong criticism from both left and right but with strong popular appeal. As Thomas Skidmore stated:

> "His enthusiastic political style and personality reinforced the Brazilian sense of optimism. Jucelino Kubitschek stressed solutions rather than problems. He

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radiated confidence in the country and its capacity to join the industrial world." (SKIDMORE, 1999: 146)

Despite all the turbulence, or perhaps because of it, the 1950s were considered the "golden years" in Brazil. Optimism was the tone and the modernization process was producing its best results. A blend of North American jazz and Brazilian samba, the *bossa nova* fascinated the world with what would be a trademark of Brazilian creativity. Jõao Gilberto and Antonio Carlos Jobin lead the musical movement that, again, was a combination of tradition and modernism, local and international influences. In the cinema, Brazil maintained a high level of production during the whole decade, dominated by musical-comedies (*chanchadas*) produced in Rio's main studios. By the end of the decade an intellectual movement would spark a new age of Brazilian movies called *cinema novo*. The major realizations of the *cinema novo* movement would appear in the following decade, but two films by Nelson Pereira dos Santos: *Rio 40 Graus* (1955) and *Rio Zona Norte* (1957) announced the foundations of this new approach in both content and aesthetic features. Directed towards the social realities of Brazilian inequalities, *cinema novo* made movies about the backlands, the *favelas*, and the small cities. While the upper classes were delighted with *bossa nova* and *cinema novo*, the whole country - especially the lower classes - were enthusiastic when Brazil won the Soccer World Cup in 1958. Being the national sport, soccer finally got the first place in Sweden-1958 after being 3rd place in Italy in 1938 and runner-up at home in 1950.

According to Renato Ortiz (1985), "it is impossible to understand the 1950s and part of the 60s without considering this feeling of hope and the deep conviction of its participants of living a very particular moment of Brazilian history. The recurring use of

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the adjective *novo* (new) betrays the spirit of the times: *bossa nova, cinema novo, arquitetura nova* (new architecture)". With this in mind the next section examines how architecture was portrayed in Brazilian publications of the 1950s.

Publicity: Modern Architecture and the Media

In order to grasp the social meaning of the houses at that time and to answer how it is that there appears to be such a strong desire for modernity, this dissertation investigated how houses were being represented in 1950s Brazil. Since the radio carries no image and television broadcasting was only starting[1], reaching only the elite, the media investigated by the archival research consisted of some popular magazines of the 1950s.

Before analyzing the magazines documented, it is important to comment on overall changes in the Brazilian media in the 1950s. The Vargas dictatorship (1937-1945) had intervened in all media vehicles in all scales, imposing censorship and controlling with tight hands the space given to any criticism and opposition (PINTO, 1993). With the re-democratization in 1945, the press became gradually more aware of its power and

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penetration in the country. During the Dutra government (1946-1950), a national debate was going on around the issue of foreign capital and the press. A law passed in 1934 prohibited foreign individuals from owning a major share of media firms. Dutra maintained the prohibition but other changes in journalism were already going on. According to Alzira Abreu (1996), an old mode of opinionated and combatant journalism was being abandoned in favor of neutral news. Newspapers were becoming more and more dependent on advertising (80% of its net revenues according to Abreu, 1996) and reaching broader audiences. Many regional and local newspapers could not survive the decade, competing with other publications with much larger structures that now could reach new markets with the advances in transportation (SODRÉ, 1966). The economic census annually published by Brazilian IBGE registered more than 3,000 newspapers in 1948 and 290 in 1959, but despite the smaller number of newspapers, the circulation total circulation doubled to almost 4 million per day at the end of the 1950s. But the major novelty of the late 1940s and early 1950s was the birth of many magazines of weekly or monthly circulation (IBGE, 1948, 1959). Aligned with the developments of a consumer society (ABREU, 1996) and the consequent appearance of advertising agencies, magazines were the perfect vehicle for ads to be delivered. The same IBGE annual publication shows that the number of weekly magazines grew from 711 in 1948 to 1,299 in 1959, with circulation reaching a total of 13 million copies. A total of 13 million magazines per year for 64 million people gives us one magazine for each 4 people or more than one per household, on average.

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[1] The First TV transmissions in Brazil were done in 1950 but the number of receivers only expands significantly towards the end of the decade.

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A quick review of some Brazilian publications of that time indicates that advertising of home furniture, kitchen equipment and related products were publicizing one kind of "ideal" house to be consumed (in any possible way) by the middle-class. Five different magazines were chosen and extensively researched. With the help of the research assistants every issue of those 5 magazines from January 1950 to December 1959 were reviewed and everything related to architecture was marked. A later selection excluded irrelevant notes and resulted in about 500 pages copied, including articles and advertisements.

The five magazines selected , as explained in Chapter 3, were *Arquitetura e Engenharia; Módulo; Casa e Jardim; Machete and O Cruzeiro.*

As expected, reports about modern architecture abound in all magazines, from the more conservative and populist like *O Cruzeiro* to the more professional *Arquitetura e Engenharia* which had embraced modernism since the late 1940s. Modern Architecture was everywhere, in reports about architecture, in pages praising the nation's development and economic growth, in advertisements, in fashion photographs and even in the social columns.

They way Modern architecture was portrayed varied over time and depended on the vehicle. *O Cruzeiro,* for instance, had a unique detachment towards Modernism. The magazine was clearly the most moralist and populist of all, having a very conservative discourse criticizing the changes in the urban way of life. Founded in 1928, *O Cruzeiro* was the first weekly magazine to challenge the regionalist boundaries, being distributed nationally by land and air. The main public of *O Cruzeiro* seemed to be the conservative and religious middle classes of urban centers which still carried many turn-of-the century

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values. But even with such conservative and some times sensationalist tone, *O Cruzeiro* could not avoid the fascination with modern architecture. In a report about Pampulha published in May 1954, 12 years after the inauguration of the buildings, the magazine criticized the buildings for not being well maintained. The text explained that as internationally acclaimed landmarks, the buildings should receive more attention from the city administration and even criticized the bishop's decision not to bless the St. Francis Chapel. Niemeyer was often present in *O Cruzeiro*, and every international exhibition, prize or competition in which he participated was noted, especially the Museum in Caracas (1957), the UN building in New York City (1952) and the collaboration for Berlin's Hansa neighborhood in 1956.



Figure 5.2. Illustrations from an article in *O Cruzeiro*, June 1954, comparing "Modern" and "Normandy" styles.

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In terms of political inclination, *O Cruzeiro* could be identified with the liberal and moralist UDN[2] which was at first the main opposition to Vargas and later the main opposition to Kubitscheck. But as discussed before, the national-development as implemented by Kubitschek had an impact on the whole country and *O Cruzeiro* was at first skeptical about the construction of Brasilia, but after 1956 it started publishing more, and with a more positive tone about it. Since Brasilia would become the main subject of the nation's collective attention from 1957 to 1960, it is probable that *O Cruzeiro* was just following a more general and inescapable trend, as did any other of the magazines researched.

In terms of advertisements, *O Cruzeiro* displayed much fewer references to Modernism than the other general public magazines investigated. The majority of advertisements in which modern architecture appeared were for furniture or construction materials. Having a more conservative tone, the colors, the general layout and even the casting of people in its advertisements are more rigid and seem older than advertisements in other magazines of the same year. It's ads were probably targeting a more conservative and already established middle class that would be offended by the "modernity" of bright colors and geometric layout. Nevertheless, modern architecture is present every time a product embodies technological advancement and futuristic ideals.

More progressive than *O Cruzeiro, Manchete* was less moralist and less conservative, more identified perhaps with the new emerging middle class. *Manchete* had always been sympathetic to Juscelino Kubitscheck; and its owner, Adolpho Bloch, was a

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[2] To understand the paradox of the UDN party being at the same time liberal in economic terms and

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close friend of the "President Bossa Nova" as JK was called. But as early as 1952, three years before Kubischeck's election, *Manchete* started publicizing modern architecture. Probably closer in ideals to the modernist generation of architects in Rio, *Manchete* was enthusiastic when reporting on Brazilian modern architecture.

On December 6th,1952, *Manchete* published a six page report, the title of which was "Brazil: architectural world power". The text begins by acknowledging that Brazilian architecture was more famous abroad then at home at that point. The photographs presented Pampulha (Niemeyer, 1942), the Ministry of Education building (Costa and team, 1936), the Sulamerica Hospital (Niemeyer, 1947) and some private houses, but focused on the impact of Brazilian modernism in Europe and the US. As if that architecture were too advanced for the country, the text says that the new architectural tendencies had little popular acceptance in Brasil, and blamed the conservative elite for not realizing how good the new Brazilian architecture was. The report ends with a photograph and a little brief about the main architects. From 1952 until the end of the decade, almost every issue of the weekly magazine had at least a note about new buildings, competitions and exhibitions of modern architecture.

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moralist in social terms, see Benevides, 1981.

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BRASIL
potência arquitetônica

Um novo artigo para turismo e para exportação - Arquitetura "boomerang" ou arquitetura de ida e volta - Consagrada no mundo todo - Mas ainda há quem procure resistir, principalmente no Brasil.

Figure 5.3. Report in *Manchete*, December 1952. The title reads "Brazil, architectural power" and the building portrayed here is the *Banco da Lavoura* in Belo Horizonte, by Álvaro Vital Brasil.

Three years later, another major report about modern architecture was published in *Manchete*. On August 21st, 1954, a report on the *Ibirapuera* pavilions and the celebrations of Sao Paulo's 4th centennial was titled "Brave New World" (Admirável Mundo Novo). The *Ibirapuera* buildings designed by Niemeyer and others for the celebrations of the 400th anniversary of São Paulo were portrayed as a wonderland, a sign of how advanced and developed Brazil was, and the international acclamation of such architecture was the ultimate proof of such.

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IBIRAPUERA: ADMIRAVEL MUNDO NOVO

Figure 5.4. Report about the *Ibirapuera* buildings in *Manchete*, August, 1954.

Manchete was also very favorable towards the construction of Brasilia, publishing weekly reports on the state of the works, celebrating Kubitschek's achievements and supporting all the efforts involved in the project. Curious about such a strong presence of modern architecture in the magazine, I could not avoid browsing also some issues of the 1960s. *Manchete* was second to *O Cruzeiro* in the 1950s but would be the leader in the following decade. In April 13th, 1963, in a report entitled "Brazil grows modern" (O Brasil cresce moderno), *Manchete* stated that no other art evolved as much as architecture

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in Brazil. After 1964, however, the focus changed from architecture and architects to major infrastructure projects like dams, bridges, tunnels and other mainly engineering works.

In its pages, a plethora of advertisements used modern architecture to sell practically everything, from cars to lottery to telephone lines, but mainly furniture and construction materials. Different from *O Cruzeiro*, the ads in *Manchete* not only display modern architecture but they also have modern layouts, modern colors and people dressed in modern clothing. The word "modern" is very frequent in advertisements. To "modernize yourself", to be "forever modern", "originality and modernism", "functional and modern" are a few among the many variations of the word modern in advertisements.

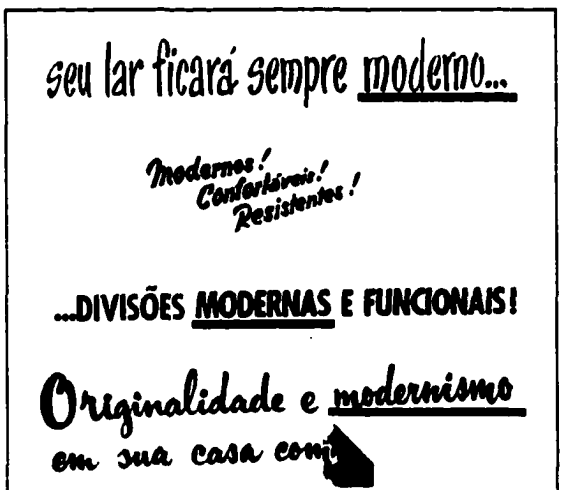


Figure 5.5. The word "modern" appearing in many different forms.

The third magazine scrutinized, *Casa e Jardim*, was also heavily investing in modern residences. The magazine follows the international House and Garden editorial line with its emphasis in interiors and individual houses, with a few apartment interiors being portrayed. But despite focusing on individuality and interiors, the majority of the spaces shown are gradually more and more modernist. In the first years of the decade it was still common to see traditional interiors in the pages of *Casa e Jardim*, competing for spaces with the novelty of modernism. But towards the end of the decade almost all

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houses shown are modernist, and the few traditional ones portrayed were farm or country houses. Even the general articles lean towards modernism, with explanations that praised the functionality of modern furniture, the modern shapes and colors and the clean undecorated walls. Many architects were invited to submit proposals for housing of different programs, and the renovation of traditional houses into modern ones was also very common in its pages. Directed towards a public that was already interested in building and or renovating their homes, *Casa e Jardim* emphasizes the values and the qualities to be pursued by the clients when evaluating houses, and those values are clearly modernist. The text that accompanies pictures and drawings often emphasize the words modern, modernity, functionality and novelty. The new and the modern are adjectives that represent the ultimate compliment when applied to a house. In *Casa e Jardim* advertisements there is a strong presence of construction materials and furniture, due to the very purpose of the magazine. In its background there is always a modernist house representing the installation of those materials and objects. Ceramics, rugs, paint, pipes, roof tiles, metallic fenestration, all were sold in parallel with the image of a

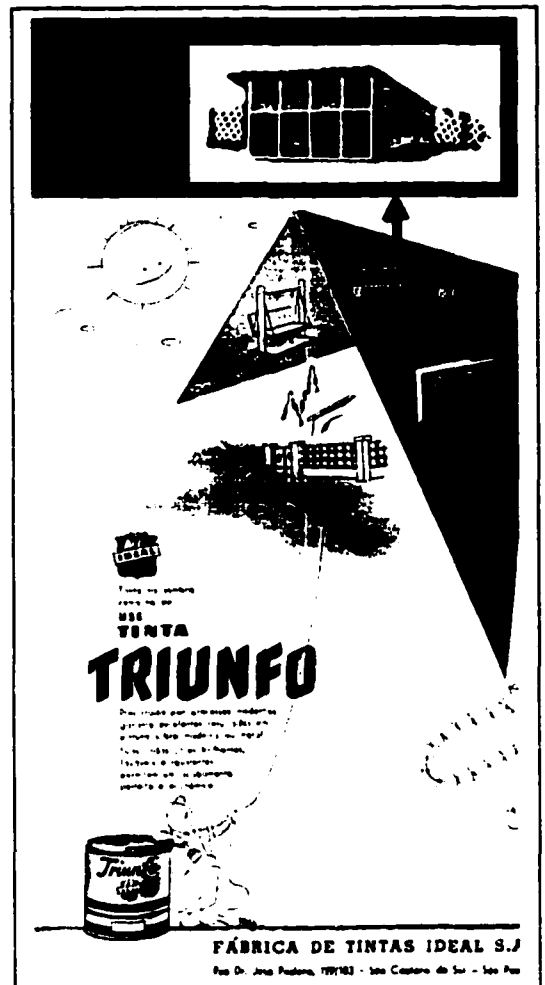


Figure 5.6. Advertisement of paint in *Casa e Jardim*, 1957. Note the modernist house in detail.

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modernist house. It was also interesting to find in *Casa e Jardim* a couple of suggestion of plans for economical houses that closely resembles the ones found on the popular modernist houses researched. The more traditional partitions and composition are present also in the magazines when the target is the lower classes, implying that architects were conscious of the desire for a modernist exterior around a more conservative plan. That paradox of a modern façade and a traditional plan is a fundamental part of this dissertation and will be discussed again in the final chapters.

The fourth magazine - or we should say journal - analyzed was *Módulo,* founded by Oscar Niemeyer's studio and the major national professional vehicle for the publication of the buildings and designs of the modernist generation. Together with drawings, perspectives and photos of modernist buildings, many technical details and specifications were also published, confirming that technological advancement was a major concern for modernist architects. *Módulo* was published by and for practitioners, constituting the main forum of discussion and publication of issues regarding the practice of modern architecture in Brazil. The many advertisements of technological advanced materials like aluminum *brise-soleils* and insulation of reinforced concrete slabs reinforce this concern with building technique, something that was not so often present in *Casa e Jardim* or even *Arquitetura e Engenharia.* The abundance of technological details and advertisements in *Módulo* calls our attention to the importance given to the journal by architects. *Módulo* was directed exclusively towards architects and that suggests that at that time there was a tight connection between architects and construction technology. Technology was an important concern of architects at those times, and even the middle

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classes show that they were in touch with some advancements as discussed in the interviews analyzed in the next section of this chapter.

With similar values but a slightly different tone, *Arquitetura e Engenharia* was also advocating modern architecture in Belo Horizonte but from a more pedagogical and peripheral perspective. In Belo Horizonte, even in the early 1950s, modern architecture had not achieved a hegemonic position and the editors of *Arquitetura e Engenharia* were not only publicizing modern buildings and designs but also trying to convince the general public of its value and worthiness. Edited at the School of Architecture of the University of Minas Gerais (now Federal University of Minas Gerais), *Arquitetura e Engenharia* was created by professors who were also practitioners. This academic inclination is clearly perceived in the editorials written by Eduardo Guimarães and many research reports by Sylvio de Vasconcelos. Guimarães was also a practitioner and later head of the university design office, responsible for many buildings and the general plan of the Pampulha campus. Sylvio de Vasconcelos was the main historian of the school, a major voice in the architectural community of the1950s and early 60s, who was arrested and exiled after the military coup in 1964. *Arquitetura e Engenharia* is very important for this research because in its pages were published the best of modern architecture in Belo Horizonte, from the point of view of the architects. *Arquitetura e Engenharia* never reached a large public outside the schools and the architecture firms, but it surely influenced the generation of students and practitioners of all the building-related disciplines and set the tone for what was considered good modern architecture. Eduardo Guimarães' monthly editorials were also a fundamental source of information about what

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was being discussed and what were the major concerns for Belo Horizonte's architects at that time. A broader discussion of the content of his editorials is presented in the next chapter.

In the *Arquitetura e Engenharia* advertisements I perceive the prominence of topics and products marketed directly to architects and other design and construction professionals. A few ads of new developments and lots indicate that the magazine might also have reached some lay-people. But the fact that all developments and lots advertised were located in the wealthier parts of the city indicates that those few non-professional buyers and or subscribers were upper class.

But to grasp a better understanding of how the middle class, the object of study in this dissertation, received the images and the influence of modern architect that was filtered, adapted and adopted in their facades, I went to ask them. The next section of this chapter is the result of the interviews with residents who live in those modernist houses since its construction.

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The Inhabitants Account of the Houses

Based on the criteria described in Chapter 3, 21 interviews were conducted with inhabitants of both Prado and Carlos Prates neighborhoods. I conducted all the interviews with the help of the two research assistants who were responsible for scheduling and accompanied me many times. Our first attempt to schedule interviews aimed at those houses for which we had retrieved the original plans, and I was able to conduct interviews with 16 of those households. Although we had a privacy/confidentiality form explaining the use of the data collected, two interviewees did not give us permission to record the conversation and four did not allow us to photograph their houses. However, with the help of a house history table (see history table on Appendix C) I was able to retrieve much of the important information from the inhabitants.

The interviewing process focused on the desires and demands of Brazilian middle-class at that time. Since we were targeting the original inhabitants, most interviews were conducted with people over 60 years old. Most of the interviews took about a half-hour or so of recording time. A walking tour with the inhabitants gave me an opportunity to observe the value they give to each of the features. The whole in-depth interview usually took between 90 minutes and 2 hours.

With help of a history table, I started by asking questions about the neighborhood and the length of time the family had been living there (I already knew from scheduling the interviews that they had been living there since the 1950s). The current resident

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family had built most houses, only 3 of the 21 interviewees had bought an existing house. Of the 18 houses built by the original families, in 13 cases I interviewed the widow, in 3 cases I interviewed the couple, and in 2 instances I interviewed sons and daughters of the couple who had built the house.

The interviews usually started with questions about the neighborhood. In both Prado and Carlos Prates the interviews revealed similar patterns of growth, the neighborhood being quite empty around 1950 and already fully occupied by 1960. As one interviewee (#3) in Prado explained, Rua Platina was the only opened street when the resident started working there in1947, around the time that the lots were being divided and the other streets being opened. Carlos Prates seems to have been developed a little earlier, which is likely due to the proximity to the main center of the city at that time. One interviewee (#13) recalled moving to the area in 1944, when according to her there were no streets, just pathways through the newly divided land. All the families interviewed had built their houses in the 1950s, a few of them (#8,17) moved in the following years of 1960 and 61. They recalled that by that time only a few lots were still empty (#17).

When I moved the topic of the conversation towards other areas of the city, asking them what was going on in Belo Horizonte at that time, 5 interviewees (#2, 3, 7, 14, 19) spontaneously mentioned the construction of the Pampulha buildings. Those families felt the impact of the *Capela*, *Cassino* and *Casa do Baile* and the tone of their descriptions was a mixture of pride and surprise. They seem to feel attached to the buildings as a sign of the optimism and development of those times, but they still use words "strange", "different", "unique" and "new" when referring to the buildings, almost 60 years after their completion. They told me Pampulha was a shock, that people would

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go there and be astonished (#3, 19). From the 5 people who mentioned Pampulha as an important event in the city by the time they built their houses, only one mentioned the influence of its formal vocabulary in other buildings. Ironically, that was somebody who lives in a traditional house built by himself in the early years of the 1950s. He acknowledged that after Juscelino built his house (by Niemeyer, 1947) and the Iate Club was built with inverted roof (by Niemeyer, 1942), everybody started using this kind of roof (#19). In an interesting inversion of the time line, one of the interviewees (#2) stated that Pampulha and many other houses were built in a "Brasilia style"[3].

Continuing the interview, I inquired about the construction of the house, how it was done, when, who designed it. Architects designed none of the houses visited, and engineers designed only 2 of them. One of these engineers was the owner's brother and a student at that time (#10). The owners themselves with help from an experienced construction worker (#8,12) or a draftsman (# 5, 19), apparently designed the other 19 houses. In the majority of the plans retrieved at the city archives (14 out of 25), the name of the proprietor is followed by the blank space where the responsible professional should have signed, indicating that somebody prepared the drawings properly but could not be responsible for the plan. Until 1967 the Brazilian law allowed single-family house plans to be approved without professional responsibility, but the construction required supervision. In the plans in which a professional signed (11 out of 25), it was mainly the name of the builder that appeared. The interviews confirmed this interpretation, in 6 of the cases the inhabitants recalled the name of the builder.

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3. Brasilia was designed in 1956-59 and inaugurated in 1960 as the new capital of Brazil. The Pampulha

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In a few cases, a relative or somebody close to the family would be responsible for the plan. That was the case in interview # 8 in which the owner himself was a builder, or in house # 17 in which an engineer, a friend of the owner, did the design, and house # 5 in which a cousin did it. Or even more interesting, in another interview (#18) the owner recalled that a friend of her husband had approved a plan and was building a house somewhere else, but they liked it so much that they copied the design.

In a unique interview for the kind of information retrieved and the clarity of the owner's memory, the issue of copying from others appeared in a very interesting way. The owner of house # 13, an energetic grandmother in her mid 80s acknowledged that she took the idea for the *varanda* with thin columns and ceramic *pastilhas* from the obstetrics clinic where she used to go when pregnant with her first child. She was younger than most of the other interviewees and her memory of the construction process seemed much better.

This information paved the way for a very interesting interpretation of the relationship between the wealthier buildings (the clinic was at Rua Carangola, an upper class neighborhood) and the middle class houses of that time. A direct dissemination might account for a large part of this phenomenon of Popular Modernism. People were exposed to the modernist vocabulary in a variety of ways, such as the appearance of modernist houses in the media or by relatives' narratives. But there is also a direct (although not always conscious) impact of famous buildings like Pampulha's or anonymous ones such as the clinic at Rua Carangola and the plan copied from a friend. These examples only could have documented through the interviews.

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buildings were built in 1942.

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When asked at the end of the interviews about which magazines they used to read at that time, many interviewees said they did were not accustomed to buy magazines at all (# 12, 13, 17, 20). What seemed a popular way of spreading information might have been constrained to the upper classes, not having reached the lower middle class as it does today. That puts even more emphasis into the direct mode of appropriation in which people derived their construction ideas from the actual modernist buildings and not from their representation in the media.

The next questions of the interview regarded the house itself, how the participants evaluate it, things they like the most and things they would change if they could. The majority of the interviewees highlighted the quality of the materials and craftsmanship available at that time. Many inhabitants where happy to say that not a single tile dropped after 50 years (#8) or that the builders and the materials they used were all very good (#21).

One interesting issue that came out of the evaluation of the house materials is the consciousness that changes in fashion dictate people's judgments and many times it does not goes hand in hand with quality, especially in terms of low maintenance and high resistance. One house owner said, for instance, that she "likes the ceramic tiles but they are not fashionable anymore (#11). A second-generation interviewee said that when growing up she didn't like the pink *azulejos*, but now she likes them more and more (#3).

It is clear that when the houses were built those materials were a sign of status and indicated modernization. More then once I heard them saying that their house was the first to use this kind of *azulejo,* which was then copied by others (# 7, 18), and that people used to comment on how modern the house was (#8, 13, 17, 18). One of the

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interviewees also acknowledged that the *pastilhas* were the best and the most expensive material available at that time (#13) a statement that is not completely true; marble and granite has always been more expensive than ceramics, so much so that their use was inconceivable for a middle class household. The use of thin metallic columns was noted by interviewee # 17 as a sign of those times, while many others pointed the inverted roof as such (# 5, 15, 19)

One of the striking issues derived from the analysis of the house plans was the lack of internal privacy, with little or no differentiation between individual and collective spaces. Those issues also appeared frequently in the interviews, revealing a paternalistic mode of organization. A striking issue arising from the interviews was the extent to which the husband held the decision power alone (#10, 12, 17, 14, 19, 20). Many of the interviewees were widowed women, and the sentence: "my husband decided everything" appeared repeatedly during the conversation in response to questions about why the house was done this or that way.

The patriarchal organization of the family was also related to the layout of bedrooms and common areas. If I already suspected that the lack of privacy inside the house indicated tight control and parental observation, the interviews confirmed that even further. Four times the question of privacy appeared as a problem in the interviews (# 7, 10, 19, 20) with statements like: "I don't like this bedroom opening directly into the living room," or "This bedroom opening into the dining bothers me a lot". Other interviewees explained that such was common and "all the houses had this bedroom up front" (#19). But since the interviews were conducted mainly with the parents that issue was portrayed as the normal and usual way. It was only in the interview with a daughter

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of the original owners that the gender issue became evident. According to her, "parents used to sleep in the front bedroom and leave the door opened for the boys" (#10). What that means is that her brothers had freedom to go in and out at anytime using the opened door off the room in the back, while girls slept in the bedroom adjacent to the parents and were under much tighter control.

The issue of gender and decision-making power might also be associated with the issue of using magazines as models for their houses. When I asked the three male owners about magazines, their vague answers implied that magazines were women things and they had no "time" for that (#2, 3, 19). When I asked the widowed women about the magazines, many said they didn't recall and four answered straight negatives. Accompanying the widows' denials of magazines' influence there were often a statement about not having decision-making power. One woman (#17) said that she looked at no magazines, she never decided anything, while another (#20) put it this way: "Today I get the magazines and I know what I want, but at that time it was not like that". A third one (#12) noted that she was 19 at that time and there was no such thing as magazines. Only one of the four women who mentioned not having being influenced my magazines said straightforwardly that at that time, they didn't used to have magazines around (#13). The parallel between not using magazines as inspiration and not having decision-making power raises some interesting questions. Could it be that magazines were considered a feminine issue and therefore construction decisions should not be based on it? Or that male control at that time prevented them from buying magazines that also promoted women's emancipation although very much hidden in the modernization agenda? Or magazines were something for the upper classes who were already more modernized?

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Those questions will be expanded on the following chapter in order to investigate the complex relationship between architecture and the media in the 1950s.

In general the interviewees also showed knowledge about how modern the house was when it was built. Usually they are still very proud of their houses; and in their speech we see that they were even more proud when the house was built. Eight of the interviewees talked about how modern and beautiful the house was, and how advanced the style was for that time (# 7,8,13,14,17,18,20). In their recollections, they frequently mention the impact the house had on other people passing by. From four of them I heard the exact same statement: that people used to comment on how modern the house was (# 8, 13, 17, 18). Comparing those positive answers with those who lives in more traditional houses (# 3, 12, 21) it becomes evident that the value and grandeur of the modernist houses are attached to a specific time frame, the 1950s. When talking about the qualities of their houses the owners of modernist ones usually frame the things they like the most in the context of that era, highlighting the qualities of the "golden years". On the other hand, the inhabitants of more traditional houses evoke some timeless qualities when describing what they like most in their houses.

It is however sad to perceive that only the original occupants of the modernist houses seems to value them. Many times in the middle of the conversation the residents remarked how their sons and daughters don't understand and therefore don't know how valuable the house is for them. Some even said that their children now want to move them to an apartment not only for the qualities of the new homes but also because the houses are too old or too old-fashioned or of too little value for them to live in. Such is more evident in the well-to-do families (those who actually have the option of moving)

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than in the less wealthy ones who still see the houses as an endowment or an important asset. It is likely that some of these houses will be taken care of and survive demolition only as long as their original owners remain alive.

As witnesses of an unique phenomena of modernism being filtered down to the lower middle classes, these houses are being threatened not from their own decay - since the owners seems to be correct when exalting the qualities of the materials and craftsmanship involved in its construction – but from shifting cultural values. It is the changes in the cycle of fashion and its condemnation of old things as invaluable that may dictate the extinction of those houses, subject to renovation or demolition. As one interviewee pointed out, at that time they used to believe in a brighter future (#21), and the houses are a inevitable expression of that.

The Path of the Information: Sources

If the previous chapter pursued the question of what were the houses; the investigation in this chapter has been concerned with **how** and **why** it happened. In light of the Brazilian context of the 1950s, it appears that a generalized optimism and relative stability were the main factors behind the adoption of modernism vocabulary by the middle classes. Without the apparent stability and the consequent optimism, the Brazilian middle classes would probably not have been so open and receptive to this new architecture, following its North American and European counterparts (OWENSBY, 1999). The optimism and the improvement in Brazilian collective self-image had a two-way relationship with architecture, since it had been fueled by the international

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recognition of the famous buildings and ended up reflecting back into the middle class adoption of its vocabulary. Architecture was clearly being celebrated as a Brazilian success, and it is clear that the same middle class that was for the first time being included in the political and economic dynamics decided to externalize its desired image with architecture. The advertisements provide us an interesting insight into what was being portrayed as ideal in those times. The context encountered in the magazines blends together the social optimism with modern design. Optimism was linked with modernism in a very intrinsic way and all the paradoxes and distortions of Brazilian modernization were swept under the rug or seen as something to be resolved later.

The inhabitant's account support the contextual information derived from the magazines and historical texts, although rather indirectly. Few interviewees talked about the political or economic situation of those times, but the way they talk about their houses reveals a lot of their impressions of the period. Most of them knew they were being very modern, and often introduce Kubitschek and Pampulha as subjects when the conversation turns into remembrances of those times.

However, one of the most striking things that arose from the interviews is the multiplicity of sources or paths of the architectural information, when penetrating from the high-art buildings towards the popular appropriation. At least four different forms of information dissemination can be perceived: influence of the major buildings, influence of the media, influence of a personal network, and simple mimesis of wealthier homes.

By the first path of information I mean the direct influence of government public buildings or commissions such as the ones around Pampulha designed by Niemeyer in 1942 or houses of famous figures like Kubitscheck's own designed in 1947. Many of the

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interviewees acknowledged that those buildings' inauguration made a big impact on them; and it was common for middle class families to visit those public places for weekend picnics and other sightseeing trips.

The presence of modern architecture in the media is the second source of influence I can recognize. Modernism was being portrayed as the desirable way of life, and although some interviewees claimed not having magazines around, it would have been improbable and almost impossible not to be influenced by the overwhelming exhibition of modern architecture in the media.

Nevertheless, directly from the interviews, a third mode of information dissemination was uncovered. A significant number of interviewees told stories about a cousin studying engineering, a friend who had bought a new house, a neighbor using this kind of tiles, or a sibling working in a construction firm. All of these people who belonged to their network of family and friends were having contact with modern architecture one way or another; and they were responsible for conveying the information that was applied to the interviewees homes.

A fourth and also very striking path of information revealed by the interviews was the pure and simple mimesis of houses built in richer parts of the city. A few interviewees were sincere and open enough to explain that they took the idea of the *varanda* from the house of their boss, or the *marquise* idea from the clinic that they used to go. However, the fact that those things happened 50 years ago and that people are generally shy and/or ashamed of admitting that they copied something from a wealthier house makes me think that the this kind of mimesis was likely much more common.

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In summary, the different kinds of information dissemination found only confirm the importance of using multiple strategies for investigating the phenomena of popular modernism, since each of these resulted from a different inquiry. The influence of major buildings is derived from the analysis of the Brazilian context, the influence of the media emerged through the archival research, and the dissemination by personal network and mimesis could only have been reached through the interviews.

This chapter aimed at analyzing precisely **how** and **why** those houses were built this way, giving voice to the ones who built them and linking them to the historical context they were living. With that added to the analysis of the physical characteristics that showed **what** are the houses, we move into the discussion of how popular (regarding the high/low relationship) and to what extent modern (regarding the modern/traditional hybridization) are such middle class buildings in the next chapter.

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CHAPTER VI

HOW MUCH POPULAR AND TO WHAT EXTENT MODERN?

This chapter starts the discussion of the meanings of Popular Modernism by investigating if and to what extent the very terms 'popular' and 'modernism' can be applied to the phenomenon. In order to do that, I rely on the analysis of the previous chapters, trying to intertwine the framework established in Chapters 1 and 2 with the analysis developed in Chapters 4 and 5. The main discussion regards how Popular Modernism fits into a broader context, approached here as a result of two pairs of oppositions: high versus popular and traditional versus modern. A third dichotomy previously framed, center versus periphery, will be discussed in the next and final chapter.

Underlying the discussions of this chapter, is the idea of a hesitant Brazilian modernization. As I have shown before in Chapters 2 and 5, there is a double path on the process of modernization in Brazil, generated by ongoing negotiations between

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progressive and conservative forces. The result is a somewhat dubious modernization, which avoids conflict and represses popular demands, assuring that progress and order do not oppose one another. This chapter investigates some of the complexities of Popular Modernism as a inevitable outcome of such duality.

But to be able to place Popular Modernism somewhere between all those binary concepts, it will be necessary also to investigate the Brazilian architectural context of the 1950s, based on texts written by architects. The following section aims to present a summary of the main issues being discussed by the Brazilian architects at that time.

The Architectural Debate of the 1950s in Brazil

Brazilian architecture entered the 1950s enjoying world-wide recognition for its quality and ingenuity and closed the decade with what should be its climax: the construction of Brasilia. In 1950 architecture's eyes were all on Brazil. More than one hundred articles about Brazilian architecture had been published abroad between 1947 and 1949, according to the Avery Index (LARA, 2000b). In the early 60s this number was reduced to a fifth (21 articles between 1962-64) despite the novelty of Brasilia striking the news. The Brazilian architectural context is what interests us in this section, but it is important to note that in the early 60s the world was already looking in another direction and Brazilian architecture was no longer making the headlines.

During the whole decade, Brazilian architects were very busy building, the country exploding in a huge construction site. The urban-industrial consolidation after

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1950 had created a cultural market for architecture (BAYEUX, 1991). Government offices had been investing in a modern image and architecture was a great tool or conveyor for such image. This was happening since the Vargas government in the 1930s but with the Kubitschek presidency it achieves an intensity that it never had before, galvanizing the whole society around the idea of "modernization". The optimism of those times was reinforced by the international recognition of the quality of Brazilian modern architecture.

While most architects had plenty of work, a smaller group participated actively in discussing its present and future. The year of 1945 marks the beginning of a more systematic architectural critique in Brazil, with the First *Congresso Brasileiro de Arquitetos* (Congress of Brazilian Architects). Vargas had step down and elections were called. Architects, like all other professionals, were excited about the prospect of democracy and stability ahead. Political participation and policy called the attention of the architects, as well as the organization of their own profession under the new regime. With re-democratization, architects were proposing and debating housing and urban policies to be adapted by the government. One of the main topics of discussion was the social role of architecture, with one group aligned with the left claiming for a revision of the relationship between architects and the working classes. Publications such as "Fundamento" in São Paulo and "Horizontes" in Porto Alegre had a clear anti-imperialistic tone and would defend the engagement of architect in social conflicts. As stated by Nabil Bonduki (1998: 87), the First Brazilian Congress of Architects (1945) issued a report calling for more state intervention and subsidized rent as the major solution for the housing deficit. After the end of World War II, the housing crisis reaches

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its peak in Brazil (it would improve a bit in the 1950s) and became major concern for the social-oriented architects (BONDUKI, 1998: 115)

Still on the left side of the political equation, Mario Pedrosa, one of the prominent art critics in Brazil, was writing about the difference between "Modern Architecture in Brazil" and "Brazilian Modern Architecture". The first was identified with imported ideas being transplanted and built in Brazil, and the later being generated in Brazil with a blend of local and international ideas that would be better adapted and appropriate for the nation. Topics such as nationalism and national identity were very common in architectural debates, as was the extent to which the now famous Brazilian Modern Architecture was truly Brazilian.

At that time, many critics had already perceived a split between the Brazilian modernist architects. Joaquim Cardoso perceived one group identified with the social concerns (around Luis Nunes) and another one identified with formal and technological issues (around Niemeyer) (BAYEUX, 1991: 145). Although both were aligned with the left, Nunes had a more radical approach towards the role of architecture and had worked in government technical offices, while Niemeyer would work for almost all Brazilian governments, but maintain his own private office. In a interview with Niemeyer in 1997, he told me he regrets not having had more opportunities to design for the lower classes, but he was sure they had profited from his work because everyone has a right to beauty (LARA, 1997). The debate around this lack of social-oriented architecture prevails throughout the 1950s, being one of the major criticisms directed towards Brazilian modernism.

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Apart from the discussion around the social role of architecture,I perceived in many of the magazines' articles and editorials the recurrent theme of purism and functionalism versus organicism. The historiography of Brazilian modernism emphasizes a lot the connection with Corbusier, but the influence of Frank Lloyd Wright is not to be discarded. As noted by Adriana Irigoyen: "the presence of Wright in Rio [in 1931], (...) could be included among the factors that combined in the consolidation of modern architecture in Brazil" (IRIGOYEN, 2000: 155).

The issue of Corbusier versus Wright appeared often in Guimarães editorials at *Arquitetura e Engenharia*, in Lucio Costa's texts of the 1940s and 50s, and in other architects reminiscences (XAVIER, 1987). A certain anxiety is perceived in the editorial and analytical articles of those times, as if the world fame of Brazilian modernism had come too fast and generated a double task as a consequence. On one hand there are new and stronger demands for the solution of urban and housing problems of the country. On the other hand there is the need to keep the pace of international recognition with exuberant buildings. While most architects in Brazil were seriously working towards both goals, it is clear that they were being forced to choose between fulfilling one of the two different expectations.

In 1953 a harsh debate would spark between the Swiss critic and sculptor Marx Bill and the Brazilians galvanized around Lucio Costa, very much about this gap between social/local and formal/international orientation. Bill visited the country and wrote a negative article blaming the Brazilians for excessive expressionism and for lacking the true demands behind modern architecture: industrialization and mass production to serve

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new clients. Costa replied by stating that in three days the Swiss architect/sculptor had pretended to fully understand the nation and its architecture, thus defending Pampulha as a necessary starting point despite having bourgeois programs (COSTA, 1995: 201).

Adding to those debatable issues was the necessity of contextualizing Brazilian Modern Architecture into the world-wide panorama of late modernism. If the Brazilians themselves had difficulties finding their niche in the complex scenario of influences and counter-influences, the Europeans also had difficulty understanding and accepting the grandeur of such peripheral architectural manifestation. An analysis of Eduardo Guimarães editorials in *Arquitetura e Engenharia* can provide many clues about the architectural debate of the 1950s in Brazil.

Already in the first editorial in January 1952, Guimarães affirms the importance of architecture among the arts of those times, and promises to remain alert for the improvement and revision of the architecture practice (GUIMARÃES in *A&E*, 1-1952). At that time, Kubitschek was beginning his term as Governor of Minas Gerais and Guimarães expresses his hopes that his term in office would reinforce Minas as Brazilian architectural avant-garde. Later in the same year of 1952, Guimarães acknowledged that Brazilian architecture was still among the leading forces in the world, but isolationism, self-sufficiency, expressionism and what he called "form-creation fever" was already undermining the excellence of Brazilian architecture. Two years later, in May 1954, Guimarães was arguing both that that European and North-American critics were becoming indifferent to Brazilian modernism and portraying it as a late offspring of Le Corbusier. He defended what he saw as the original Brazilian contribution to modern architecture: ingenuity, imagination, plasticity and lightness. He saw these being used in

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more popular-oriented programs, improving its "human and social component". Social oriented programs were the topic of his editorial again in September 1954, when he argued for the "inclusion of the common men as the architect's client".

Around 1955, the design and construction of Brasilia becomes a frequent topic in his editorials. Twice Guimarães wrote criticizing Le Corbusier for offering his services to president Kubitscheck and calling for a competition, that actually happened in 1956.

Guimarães editorials show the swinging of the main topics between the international and the local context. Before 1955, many editorials discuss European and North American issues, and explore their connections with Brazilian architecture. Corbusier and Wright were often mentioned in relation to contemporary trends in Brazil, and the latest Brazilian architecture was analyzed and evaluated in comparison with international buildings and ideas. After 1955, however, national issues dominate his editorial writing agenda. The construction of Brasilia becomes the main topic, accompanied by other local problems involving professional regulation and educational curriculum. International ideas are less and less present, as if Brasilia obfuscated everything else. It is understandable that the Herculean task of building a new capital in the backlands occupied the minds of all Brazilian architects. Especially in Belo Horizonte, geographically located between the new and the old capital, the constant movement of architects and other professionals involved in the construction might have had a huge impact. But in other professional journals, such as *Módulo*, or weekly magazines like *Manchete* and *O Cruzeiro,* the construction of Brasilia was the main topic.

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With his editorials, Guimarães left a fantastic account of all the worries and wonders of 1950s architects. If in the first half of the decade the international architectural scene is very much present, in the second half Brasilia absorbs all the energy and obliterates everything else.

But besides this foreign/local tone change, Guimarães mentioned only once the popular modernist houses. In this account, he saw what I call Popular Modernism as a degeneration of a public not "prepared" to receive modern architecture. The same Guimarães who had an acute perception about the self-sufficiency of Brazilian architecture saw the spread of modernist vocabulary as a mimetic degeneration. In that same editorial he wrote about Niemeyer: "his work among architectural illiterates not prepared to receive such violent shock of genial creativity generated a wave of formal mimetism."

Agreeing with Guimarães was Luis Saia, another important architectural critic of the 1950s. For Saia, "the cards are nowadays few and easy, efficient and profitable: half a dozen formal solutions and some words of magic power: '*brise soleil*', 'V-shaped columns', 'amoeboid curves', 'glazing facades', 'modern', 'functional', and etcetera."[1] (SAIA, in XAVIER, 1987: 199).

Maybe because they fear loosing control and/or authority over architectural manifestations, or more probably because self-constructed houses were not considered serious architecture, the majority of Brazilian architects had a negative take on the Popular Modernism that was flourishing at that time. Echoing Lúcio Costa and so many

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1 The original Portuguese quotation of Luis Saia follows: "com efeito, as cartas do atual baralho são poucas e fáceis, eficientes e rendosas: meia dúzia de soluções formais e algumas palavras de poder magico: "brise soleil", "colunas em V", "pilotis", "amebas", "panos continuos de vidro", "moderno", "funcional" e etc...,,

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other architects (even today, 50 years later), most architects would say that "what distinguishes architecture from mere construction is the plastic intention" (COSTA, 1959). Whether the middle class houses with modernist facades had a very well defined plastic intention or not will be debated in the next chapter, but the important point here is that those houses were seen negatively by almost all Brazilian architects, with one solely registered exception.

While most architects criticized such popular appropriation and did not perceive the power of modernist vocabulary being adopted by the middle class, João Batista Vilanova Artigas manifested a different evaluation. Artigas was an architect in São Paulo, professor at USP, social activist and leader of the so-called *Paulista School* identified with 1960s brutalism. In a speech for the graduates of 1955, published in a collection of his writings (as well as in XAVIER, 1987), he said that:

> we see, on the other hand that the new architectural expressions of Brazil are being accepted by the masses, even when it is presented on its most audacious forms. We may even say that Brazilian people opens a trust credit to architects... and on the very vulgarization of certain achievements of Brazilian modern architecture we shall see a reflect of a general sympathy towards our renovation efforts and solutions it proposes. There are those who sees the fast acceptance and reproduction of certain building forms without sufficient critical assimilation as a symptom of decay. The democratization of architecture's achievements must be seen as a burning desire, from the masses, for acquiring a new architectural language[2]. (ARTIGAS, 1986)

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2 The original Portuguese quotation of Artigas follows: "vemos, por outro lado que as expressões novas da arquitetura no Brasil vem sendo aceitas pelo povo, mesmo quando se apresenta em suas formas mais audaciosas. Podemos mesmo dizer que o povo brasileiro abre um crédito de confiança aos arquitetos". E continua afirmando que: "na própria vulgarização de certas conquistas da arquitetura brasileira devemos ver o reflexo da simpatia geral pelo esforço renovador e pelas soluções que ela propõe. Há os que encaram a rápida aceitação e reprodução de certas formas construtivas sem suficiente assimilação crítica ou elaboração criadora, como um sintoma de decadência. A democratização das conquistas da arquitetura deve

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It is symptomatic that Artigas, a member of the Brazilian Communist party and leader of the "*Paulista*" School (which was forming around him at the FAU-USP school of architecture) was the only one to give value to the popular appropriation. His sensibility towards social-oriented issues might have helped frame his positive take on Popular Modernism, but it cannot be the sole explanation since other left-wing architects were as prejudiceful as the more conservative ones. What may account for Artigas unique remarks is a exceptional ability for seeing the big picture and a leadership nature that made him the most important architect of the 20th century in São Paulo.

Even thirty years later scholars would write about the phenomena as kitsch (GUIMARÃES & CAVALCANTI, 1982) and not bother going deep into the roots of that popular acceptance.

But apart from the modernist vocabulary reaching down into the middle class, the 1950s were the golden years of Brazilian architecture, and as Artigas also pointed it out, Brazil was the country of soccer, music and architecture (ARTIGAS, 1986:27). Such crescendo achieves it climax with the inauguration of Brasilia, April 21st, 1960, which at once marks its highest point at the beginning of a long decay that would stand for two decades (LARA, 2000b).

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ser encarada como o desejo ardente, por parte do povo, da aquisição de uma linguagem nova no campo da arquitetura" (ARTIGAS, 1956).

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Between Popular and High Architecture

As I have already discussed in Chapter 1, the relationship between architecture and popular culture is one of the main challenges of contemporary architectural theory. Defined by the dichotomy of high versus popular architecture, a gap is perceived between both camps. As stated by Andreas Huyssen "modernity has always had a volatile relationship between high art and mass culture," and he later develops the idea that the avant-garde had tried a alternate relationship (HUYSSEN, 1986). Another important aspect of the high / popular dichotomy discussed in Chapter 1 is the exchange of ideas and trends between the two poles. Criticizing the hegemonic theory of "Critical Regionalism," I have tried to demonstrate how traditional architectural historiography has emphasized one direction of the movement, that of architects consciously taking elements of vernacular built environment. However, lay people's appropriation of high architecture has not received much attention, being perceived as unworthy of architectural scholarship.

But it is also widely known that modernism, especially in the U.S., has emphasized the "high" manifestations, with little popular appropriation. As the post-modern advocates have stated from the beginning, modernism has never been popular. One of the main hypotheses of this dissertation is that in Brazil the high-popular equation in architecture has been different due to the phenomenon of Popular Modernism. The discussion of how popular it has been is the topic of this section.

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In order to place Popular Modernism in relation to this high/low paradox in Brazil I need to frame how the issue was being discussed there at that time. Since the *Semana de Arte Moderna*[3] in 1922 Brazilian intellectuals were paying close attention to issues of popular culture and the dialogue between high and low art manifestations. The debates were restricted to an elite, as was the consumption of cultural goods at that time. According to Renato Ortiz, the characterization of the popular in Brazilian culture only happens after the formation of a consumer market for cultural goods, well into the 1950s. Ortiz reminds us that there was no middle class around the 1930s to sustain the development of a "Brazilian culture" (ORTIZ, 1985: 63). That statement is sustained by Nestor Garcia Canclini's thesis that Latin America in general and Brazil in particular had an exuberant modernism with deficient modernization for only a tiny part of the population was immersed in real modernity (GARCIA CANCLINI, 1995).

Both Garcia Canclini and Ortiz acknowledged that a truly popular art would only exist when reaching a popular audience. The *modernistas* (modernists) of the 1920s and 30s had the common people in mind and it is often present in their work of art, be it literature, painting or music. But the audience of those works of art was still the enlightened elite, and it would only change with the improvements of mass media and the rise of the middle class in the 1950s. In these terms, the cultural production of the early modernists in Brazil was very much one-directional, with artists deriving their inspiration from the popular realm. On the other hand, lay people were not being influenced by high art manifestations. The lower classes were present in the books and in the paintings but they never saw or read such works.

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[3] *Semana de Arte Moderna*, a week of art exhibitions, poetry and manifestoes declamation in São Paulo,

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Even in the 1950s, two of the major Brazilian successes, music and cinema, suffered from the same problem of not achieving a larger audience. The world-wide acclaimed bossa-nova, so famous for blending North-American jazz with Brazilian samba, has never been a hit in the slums were the samba was born. A ultimate urban upper class phenomenon, *bossa-nova* was produced and consumed by a upper middle class in the southern neighborhoods in Rio and spread to other wealthier young audiences in Brazilian major cities. While Antonio Carlos Jobin is known all around the world for having composed "Garota de Ipanema" (Girl from Ipanema) among other hits, in Brazil he never sold as many albuns as Roberto Carlos[4] or *Sertanejos* (Brazilian country music). The movie movement known as *cinema-novo* has enjoyed an even narrower audience. Although the manifesto-thematic of the film directors was based on bringing the "people" to the big screen, a great majority of Brazilians had never watched a *cinema-novo* movie. As we are reminded by Randall Johnson, the masses were on the screen but not in the audience of *cinema-novo* (JOHNSON & STAM, 1982: 37).

1922, that is considered to be the starting point of Brazilian modernism.

[4] Roberto Carlos started in the early 1960s with the *Joven Guarda* (young-guard) movement and became the "king" of romantic music in the 1970s.

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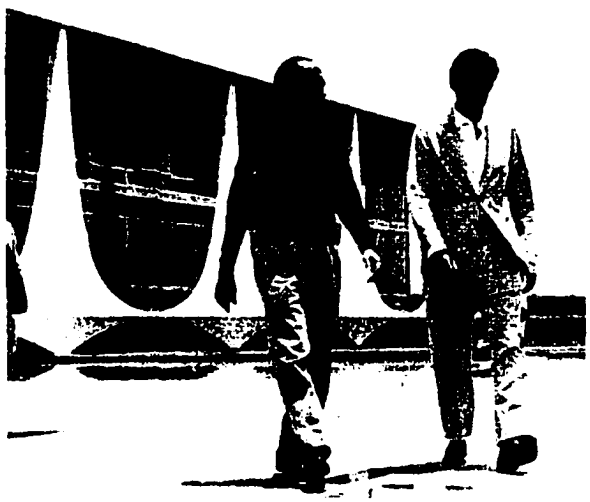


Figure 6.1. Antonio Carlos Jobim and Oscar Niemeyer in Brasilia, 1959.

Intellectuals at that time acknowledged that the masses were in the lyrics, paintings and screen but not on the audience. In architecture, the preoccupation with the masses was addressed by the need for low-income housing. In those terms, the issue of housing vis-a-vis government investment was the major concern of architects. The 1950s saw a growing number of apartment buildings being designed and built, commissioned by public or private institutions. Moreover, some architects were unsatisfied with designing for the lower classes, claiming for more participation and power to be granted to the users (BONDUKI, 1998:73).

But the issue of how to achieve a true popular architecture would again be raised by João Vilanova Artigas. According to Artigas, "as long as the connection between architects and the popular masses is not established, not organized, and as long as the work of architects do not achieve the honor of being discussed in the farms and

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industries, there will be no popular architecture[5]" (ARTIGAS, apud XAVIER, 1987: 142).

From Artigas' statement I think a few interesting points can be raised. It is clear that he is worried about involving the masses in the discussion of architecture, giving voice for the actual users of the spaces designed by architects. But while his progressive ideas call for including industry and agricultural workers as not only clients but discussants of architecture, he also insists in the indispensability of "the architect. Artigas calls for the work of architects to be discussed by the working class, but he does not asks architects to discuss the working class houses. Here I perceive the same emphasis on the architect as a filter, a connoisseur that defines what is architecture and what is not.

One question follows. How much were the arts in touch with Brazilian reality in the 1950s? Artigas was an exception in both his acknowledgement of Popular Modernism as a compliment and his preoccupations with the masses, and he still saw the architect as the ultimate embodiment of aesthetic knowledge.

If Brazilian intellectuals and artists were talking about the popular masses, "brazilianess", and national identity, how does this relationship between high and low operates? The discussion of popular culture at that time was strongly tied to the political moment, so much that for Carlos Estevan, popular culture could only exist related to conscious revolutionary objectives (ESTEVAN, 1963). By Estevan's standards, Popular Modernism could not be considered popular culture since it does not display revolutionary conscience, being therefore 'alienated'.

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[5] The Portuguese original quotation of Artigas follows: "enquanto a ligação entre os arquitetos e as massas populares não se estabelecer, não se organizar, enquanto a obra dos arquitetos não tiver a suma gloria de ser discutida nas fabricas e nas fazendas, não haverá arquitetura popular."

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One of the benefits of the analysis of Popular Modernism it that it does not fit the general pattern of high/low dichotomy, adding to this debate. Many differences place the Popular Modernism as an exception, but an exception that may prove the rule. When comparing such Popular Modernism with other art manifestations of 1950s Brazil, I am tempted to claim that it was a unique phenomenon that inverted some of the traditional relationships between high and low.

The medium is derived from high architecture, being it the elements: inverted roofs, brise-soliels, thin metallic columns, ceramic tiles, and canopies. The agents are definitely popular or "low" since there are no architects designing those houses, although I was able to find a few other professionals involved with the design and construction of the houses. But unlike in other encounters between high and low, the size and nature of the audience is very different, since thousands of modernist facades can be found in every neighborhood occupied around the 1950s. And this significant number exists not only in Belo Horizonte where this study was conducted, but also in all major Brazilian cities. This fall outside the scope of this dissertation but is worth noting. The fact that everyone can see those facades, being as public as any other urban architectural object, multiplies the audience even more. Not only were the owners involved in the process as producers, but the whole city population, who passed by those houses daily, was forcibly involved as receiver of the message, in a manner close to what Walter Benjamin explained as "distracted perception" (see Chapter 2).

In summary, with a medium derived from high architecture and manipulated by "low" agents, achieving a broad audience, Popular Modernism occurs in the exact opposite direction of the traditional high/low relationship. As discussed in Chapter 1, the

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traditional meeting between high and low in architectural historiography concerns a "high" agent (the architect) deriving his vocabulary from some popular or "low" built environment and rearranging it in a sophisticated building for a small audience.

In these terms, the phenomenon of Popular Modernism is unique in providing us a counter-example that is a successful bridge between high art and the masses, for incorporating elements of a sophisticated and highly acclaimed architecture and spreading it to a significant part of the Brazilian population. But instead of perceiving it as a useful bridge or a tool for touching the masses or a successful outcome of Brazilian modernism, architects saw it as degeneration and worthless imitation or kitsch.

The reason for that dismissal might be that no architect was involved in the design and construction of those houses, therefore considering it as falling outside the realm of architecture worth studying. Or following Garcia Canclini, the problem is that while high art values uniqueness, popular culture values the collective, the repetition. (GARCIA CANCLINI, 1995: 173). Dinah Guimarães and Lauro Cavalcanti's book describing some of those houses as "kitsch" architecture might fit into that definition for they choose to analyze the more picturesque and exotic houses, leaving behind the great majority of Popular Modernist ones. But even when perceived as a hybrid, a blend of high and popular architecture, these Popular Modernist houses are not easily defined since they are also a hybrid between modernist and traditional architecture. The following section analyzes the fluctuations in this other axis, defined by its traditional and modern extremes.

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Between Traditional and Modern Architecture

Right in the beginning of his *Hybrid Cultures*, Garcia Canclini coined a definition that might best explain the relationship between the traditional and the modern in the investigation of Popular Modernism. According to him, "in Latin America, traditions have not yet gone and modernity has not yet arrived" (GARCIA CANCLINI, 1995: 1). He was speaking here of the present (early 1990s), but I don't think it would be a problem to extend that to the past, especially to the 1950s in Brazil.

When analyzing the Popular Modernist houses, I came to the conclusion that they are in fact impure exemplars, a crossbreed of traditional and modern issues. At the level of the facades as the formal analysis investigated it in Chapter 4, elements of modernist vocabulary are often combined in a more traditional manner. I have explained how the windows for example tend to have medium sizes, much like the more traditional houses, but are organized asymmetrically much like the more modernist buildings. In terms of roof and overall volume, the formal analysis also showed that while the volume tends to be squared when viewed from the street (a modernist feature), it usually hides a more traditional ceramic tiled roof.

In the interior, the modern/tradition hybridization is even more evident, for the majority of the houses visited had a very traditional spatial layout but modernist elements such as ceramic fragments in the floors. And the analysis of the interiors also revealed a tendency towards a more modernist layout on the wealthier/larger houses, indicating a

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transition in the interior that might have happened late in relation to the façade transformations.

But the discussion of to what extent those houses are modern or traditional brings me to question of what is actually tradition and modernity. If a "modern" identity was being formed in Brazil, and architecture was very much part of this construction, what about the "traditional" identity that preceded it? The houses seen here as more traditional ones are, in terms of their facades, a consequence of a French neo-classical movement that swapped Brazil in the 19th century. Decorated facades with romantic styles, pitched roofs, side *varandas* and arched windows are all elements derived from the Beaux-Art vocabulary, brought to Brazil by the Portuguese court in 1808.

If there is a tradition to rely upon it is certainly manifested in the plan of those houses. Different from the more fashionable cycles of the facades, the plans of those houses have been evolving from the Portuguese colonial to the gold-rush 18th century buildings and all the way into the urbanization early 20th century, as explained by Nestor Goulart Reis (1978) and Fernando Novaes (1997).

Therefore, this dichotomy between the novelty of the facades and the conservatism of the interior organization is not something new to domestic architecture in Brazil. Nevertheless, many scholars have already explored this theme of importing foreign trends into Brazilian culture. Roberto Schwarz for instance has investigated the recurrent importation of those "out of place ideas", to the extent that for him it becomes a tradition (SCHWARZ, 1992). For him, it is the dislocation of foreign ideas in the Brazilian reality that defines most of the national movements. In a similar vein was also the modernist *antropofagia* or "cannibalism" manifesto of the late 1920s, according to

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which Brazilian culture was defined by the act of eating foreign trends to be digested into something else.

But if there is a "tradition of the new" or better, a "tradition of importing ideas", the Brazilian Modern Movement in architecture also had a different attitude towards tradition since its beginning. Lúcio Costa, the very same man that was responsible for introducing modernist curricular changes at the *Escola Nacional de Belas Artes* in 1930, was also one of the leading forces behind the creation of the SPHAN (office of preservation) in 1937. Working on both fronts, the past and the future of architecture, Costa and others were able to weave together an intellectual discourse that connected the Brazilian modernism with the 18th century baroque of Minas Gerais. If on the European modernist avant-garde the past was used as an alterity, as something to be opposed to, the Brazilian case is singular for the use of the past in the construction of identity (LARA, 1998). It should be noted that it is not every past, but a carefully designed and chosen myth of origin. However, the use of memory as an identity rather than an alterity, allowed the modern project to solve many of the complex conflicts of the first decades of the 20th century. Ancient and modern are integrated and while it proposes a continuation with an older past – baroque - it successfully denies the importance of the Beaux-art ideals of the 19th century.

As remenided by Adrian Gorelik, "they could not propose a *tabula rasa* since the problem was the *tabula rasa*, therefore the historic jump went straight to the myths of origin without mediation, to invent the past[6]" (GORELIK, 1999: 67).

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[6] The Portuguese actual quotation follows: não podia se propor uma tabula rasa porque o problema era a tabula rasa, por isso o salto histórico, sem mediações, endereçado aos mitos de origem para inventar um passado (GORELIK, 1999: 67).

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If the paradigmatic buildings of Brazilian modern architecture are the result of a combination of modern and baroque influences (FRAMPTON, 1992; SEGAWA, 1998), the houses that configure the Popular Modernism phenomenon are also representative of such paradox. In these terms they are even more modernist than the famous buildings of Niemeyer and others, specially if we look for the roots or the demands of modern architecture: new clients, new programs, new technology, and discomfort with traditional styles. The new clients are present since the idea of the middle class adopting modernist vocabulary is unique. The new technologies play a big role, as demonstrated by the use of ceramics, metallic columns, *brise soleils* and flatter roofs. The discomfort with traditional styles is certainly one of the main reasons behind the modernist facades. Probably the new programs are the only of the four major demands partially absent, since the plans don't change much except in the wealthier houses.

Those houses fluctuate between tradition and modernity and also between high and popular manifestations. Rather than trying to anchor or fix the phenomenon of Popular Modernism in one half or another of those dichotomies, I should conclude this section with a discussion of to what extent this double root and hesitant outcome is a reflection of a broader duplicity, characteristic of Brazilian modernization.

When trying to conceptualize the phenomenon of Popular Modernism inside the broader framework of the Brazilian path of modernization, I relied on many authors who describe such modernization as ambiguous and double-faced (FAUSTO, 1998; BENEVIDES, 1979; ORTIZ, 1985). On one hand, there are progressive forces pushing ahead, thirsty for modernity and very much in favor of revolution and change. This

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project usually identified with emerging sectors of Brazilian society. More urban and more educated then average, they are not afraid of the new and have a more positive take on the transformations that are occurring since the late 19th century. In fact, it is clear from the debates of the first half of the 20th century that those progressive forces are displeased with the slow pace of change. When the developmental model initiated by Vargas and accelerated by Kubitcshek collapses in the early 1960s, the ideological divide that emerged would see the progressive forces aligned with the left in favor of faster and more radical transformations (SKIDMORE, 1999; FAUSTO, 1998).

On the other hand, there is a more conservative set of forces pushing for a controlled modernization, worried about order and social hierarchy, suspicious of things new and preaching a slow evolution. Identified with the rural oligarchy and the old industrial owners, this group sees the process of modernization as inevitable, but tries to maintain its privileges by allowing only the transformation that interests them.

The Brazilian modernization had evolved between those two forces, sometimes slower and more controlled as during the first Vargas government (1930-45), sometimes flirting with social movements and labor unions as during the second Vargas government (1951-54), sometimes with accelerated economic growth as during the Kubitschek government (1955-60). But beneath all those fluctuations there is a tactic compromise for "order and progress" as it is written in the national flag. Such modernization process should bring progress and transformation, but in a controlled manner so as not to threaten the social order. Perceived in slightly different terms by different scholars and authors, this dual modernization is labeled "incomplete" by Garcia Canclini and "conservative" by Renato Ortiz (1985) and Boris Fausto (1998). It is also important to point out that

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there was not one single process of modernization but many, overlapping and or distancing themselves according to the context and the transformations in course.

It is inevitable that the middle class houses organized here around the theme of Popular Modernism would carry the same split personality. The urban emerging middle class that was responsible for building the majority of the houses that are object of this study should identify more clearly with the progressive side of the dual modernization. But that does not seem to be absolutely true, and the conservative interior betrays their modern image, revealing their double roots and double standards. Later in the 1960s, when the ideological camps of right and left collided over the need for more or less transformations, the same middle class that displayed their modern facades in the 1950s, strongly supported the 1964 coup and military authoritarian regime that followed.

The phenomenon of Popular Modernism is, therefore, as much a result of this dual-faced modernization as it is a result of the high/popular and the modern/traditional dualities. Such double roots would be mainly manifested in the overlapping of a modernist façade hiding a conservative plan, but it also unfolds into a discussion of universality versus particularity, or center/periphery issues, as will be explored in the final chapter.

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CHAPTER VII

CONCLUSIONS ON POPULAR MODERNISM

This chapter presents the final remarks of this dissertation on the phenomenon of Brazilian Popular Modernism. Beginning with the discussion of what it means to approach Brazilian modern architecture from popular lenses, it proceeds by investigating the universality of the debate. Located between modernism and Post-modernism, between center and periphery, Popular Modernism offers a contribution to the contemporary revisions of the Modern Movement. At the same time, the study of Popular Modernism encourages the enlargement of the architectural field to include middle class houses that have often been considered unworthy of study. Contributing to the current revision of the Modern Movement and enlarging the scope of what is traditionally the object of architectural scholarship, Popular Modernism also defines itself as a unique phenomenon. The uniqueness of Popular Modernism is the topic of the third section of this concluding chapter, debating its place in the broader framework of Brazilian culture. Following that, the chapter and the dissertation ends with the discussion of lessons from the study of Popular Modernism and with indications for further research.

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Brazilian Modernism from Popular Lenses

To frame the final conclusions on this study of Popular Modernism, I will begin by looking at the debates around popular culture in Brazil. Since the 1920s, Brazilian intellectuals have extensively debated, arguing for and against popular culture. This debate continues today but what interests us here is the perception that every discussion about popular culture contributes to the "construction" of a certain popular culture, one that fits the ideals and goals of the discussant party. One of the challenges of such construction has always been to define what is truly Brazilian and truly popular.

The debate then centers around what should be defined as truly Brazilian. The difficulties of this definition permeate any discussion of identity and popular culture in Brazil. If in the 1930s an intellectual elite working around Vargas' Education Minister Gustavo Capanema, was pushing for a definition of "brazilianess," that same concept was being challenged in the 1950s by the rise of a middle class eager to consume cultural goods. The old definitions of what was truly Brazilian were not working anymore in the 1950s. With an accelerated pace of urbanization and industrialization added to the improvements in transportation and mass media, a new "brazilianess" was being created. The emerging urban middle class was promoting its own icons of "brazilianess," based on what it saw in the media and the movies. The main debate would then be centered around the issue of foreign influence. If the "*antropofagistas*" of the 1920s were already

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defining Brazilian culture as the "eating" and "digesting" of every foreign novelty, this would be exacerbated by the development of mass media around the 1950s.

For the Brazilian intellectuals, the debate over accepting or rejecting foreign influence would dominate the following decade. In the context of music festivals, for instance, an intense conflict would arise around the issue of whether or not to use electric guitars for performing Brazilian music.[1] The argument would put composers and singers in two opposing camps, debating if new instruments (especially electric guitars) should be incorporated when performing MPB or *Música Popular Brasileira* (Brazilian Popular Music). The very name Brazilian Popular Music was being challenged. Some were arguing that when electric guitars were used the music should not be called MPB, and others argued that the very roots of Brazilian Music incorporates African rhythms and European melody. Here too, it has always been a struggle to define what is Brazilian and what is popular.

But according to Renato Ortiz, the dispute around what is national and what is popular revolves also around the political and economic matters with which Brazilian government was struggling (ORTIZ, 1985: 130). It is important to note here again that the precarious stability of the Kubitschek government was based on two opposing forces: nationalism and foreign investment.

Roberto Schawrz, reflecting on this same problem from the perspective of a literary theorist, defends the concept of "ideas out of place" to describe the Brazilian

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[1] In the mid 60s a series of music festivals would be organized by competing television channels, in which composers and interpreters would compete for the public and a jury of specialists. The *festivais da canção* (song festivals) would then become the main entry-level mechanism for young musicians, a chance to present themselves to a national audience through the TV. It was in the context of those festivals that the

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tradition of importing cultural trends. For Schawrz, it is the very dislocation or lack of location of imported foreign ideas incorporated into the Brazilian reality that defines most of the national movements. Following that, Schwarz articulates a question that challenges the traditional interpretation of popular culture: if the search for the genuine is what drives this whole discussion about "brazilianess", what would popular culture be if it could be isolated? (SCHWARZ, 1992: 3)

What seems like a theoretical problem poses many interesting challenges to this discussion of national and popular versus foreign cultural trends. Faced with the impossibility of isolating any aspect of popular culture, one should consider natural the flow of influences among different cultural segments. Or as I have argued before, one of the answers might be to develop a new approach in which the counter-influences or inverted path of dissemination would be considered as seriously as the traditional regular path. This way, the inversions of low manifestations deriving from high art, modernism taking from tradition, or periphery influencing the center, would all be included into the broader equation of cultural movements.

But returning to the Brazilian context, Schwartz notes that the importation of ideas is part of the Brazilian cultural process, but to know the local context is not enough, it is necessary to know the original context (SCHWARZ, 1992:40).

In accordance with that, I started the dissertation with a discussion of universal ideas of modernity and modernity's relation to modernization and modernism. It is important at this point to review some of the issues that were raised by the framework developed in Chapter 2.

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debate around using or not electric guitars arouse, opposing *bossa-nova* defending the traditional way versus *tropicalista* arguing for incorporation of new instruments.

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To this end, I find it necessary to relate the phenomenon of Popular Modernism with the idea of modernity as defined by Hegel. As presented in Chapter 2, modernity for Hegel is about individualization and universalization. That being said, it is interesting to perceive that individualization and universalization are very much related to the debate around the architectural Popular Modernism.

The rise of the consumer power and political power of the middle class in 1950s Brazil brings up the issue of individualization. Not only was the Brazilian middle class struggling to establish a new identity that would represent its new societal role, but it was also wishing to participate in this new universal and modern culture being promoted by the media. The house facades analyzed in Chapter 4 are very much an outcome of such individual expression in tune with a universal trend.

Jurgen Habermas (1987) also supports the idea that modernity is based, among other things, on what he labels the formation of ego-identities. Such ego-identity, as expressed in the unique compositions of the facades, links the phenomenon of Popular Modernism to a much broader context of modernity.

On the other hand, the issue of universalization implies that ideas become less local and more immersed into a global flow that we now (in the year 2000) perceive as irreversible, but that was very much a cause of controversy in the 1950s. In a context of fast urbanization and economic modernization superimposed on conservative order and values, the process of Brazilian modernization would forcibly generate conflicts and induce re-definitions of "Brazilian" or "popular". If in the 1950s the definition of Brazilian popular culture had to do with the acceptance or rejection of foreign trends, it was inevitably tied to universal circulation of those ideas and trends. As Roberto Schwarz

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argued, popular culture can not be isolated from the broader reality, therefore constant transformations in popular culture's core or in the definition of what is genuinely Brazilian are possible.

The issue of universality becomes central in the context of those re-definitions, and the architectural Popular Modernism was surely tied to the dichotomy of local/universal that underlies all processes of modernization. The following section discusses the universality of the Popular Modernist phenomenon and its links to the international architectural debate.

The Universality of the Debate

This section explores a series of discussions revolving around a simple question: if Popular Modernism has any contribution to the current architectural debate, what could it be? Or in other words, how to link this unique phenomenon to the multiplicity of architectural theories and proposals of the late 20th century?

When trying to frame the phenomenon of Popular Modernism with those broader frames, two major issues appear. The first regards the location of Popular Modernism inside the debate between modernism and Post-modernism. The second investigates how Popular Modernism is inserted into the center/periphery debate. In order to better understand both issues, it is important to review the idea of universalization at the roots of modernity as defined by both Hegel (1988) and Habermas (1987).

Modernity for Hegel is the outcome of forces pushing for individualization and universalization, that would lead inevitably to one truth and consequently to an advanced

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civilization. Habermas also sees the universalization of norms of action and the formation of ego-identities (individualization) as the major forces behind modernity. But differing from Hegel, Habermas sees modernity as an ongoing process based in conflict, one that does not necessarily lead to truth or advancement. More aware of the dangers of modernity, Habermas, however, still believes in its transformative power and the possibilities for some advancement.

This discussion of modernity as an ongoing process versus something foregone is important, since it is the basic structure around the whole Post-modernism debate that happened in the 1980s. Moreover, it still frames much of what we discuss today in architectural theory. After the strong reaction against the modernist dogmas that started with Venturi in 1966 and culminated in the *Strada Novissima* at the Venice Biennale of 1980, architectural criticism gradually returned to the Modern Movemnet for reference. The current plethora of books and scholarship papers re-viewing modern architecture reflects how important modernism still is.

The phenomenon of Popular Modernism becomes an interesting appendix to this broader re-discovery of the Modern Movement for a number of reasons. The first and foremost regards the very conjunction of those two words together: "popular" and "modernism". The reconciliation of modernism and popularity seemed impossible for the advocates of Post-modernism. If modern architecture had in its early roots programs and ideals guided towards the masses, it would move further away from popular demands as it changes in time (after World War II) and space (in the U.S.). By the 1970s, one of the major arguments for the dismissal of modern architecture was that it had never been popular (JENCKS, 1990; VENTURI, 1966; KRIER, 1984). Post-modernism, instead,

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with its collage of classical elements, was proposed as a solution for reconciling architecture and popular taste.

Therefore, in studying Brazilian Popular Modernism is it striking to learn that, contrary to what the Post-modern advocates argued, modern architecture had been popular. But as I discussed, not even the Brazilian architects were able to realize it at that time, and the European and North American critics were right to say that in their countries modernism had never been popular[2]. But my goal in this discussion is not to revisit the arguments of Post-modernists versus modernists but to question to what extent the Brazilian Popular Modernism can join this broader debate.

It is also important to point out that although this dissertation, for methodological reasons, analyzed only a few hundred houses built during one decade in one Brazilian city, other appropriations of the modernist vocabulary have occurred. In California, for instance, the *Case Study Houses* are another instance of modernism dissemination. Although the *Case Study* Californian houses were designed by architects and located in large lots in a suburban pattern, it is arguable that they also influenced much of what is built in southern California still today (SMITH, 1998). It also arguable that similar phenomena had happened in Mexico, Turkey and India, countries that adopted modernism in a manner similar to Brazil's.

But the impressive extent of the Brazilian phenomenon, in addition to the fact that almost no architect was involved, and considering the freedom with which the elements

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[2] In Florida and California the spread of modernist vocabulary was considerably greater than in the rest of North America. But even there it does not achieved the scale of dissemination into the social strata as it did in Brazil.

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of modern architecture were recombined into the facades, makes a strong counter-argument to the statement that modernism could not be popular.

In this regard, it is interesting to review some of the definitions of some key theoreticians of Post-modernism as a broader cultural transformation. Fredric Jameson, for instance, asserts in his now classical "Postmodernism, or the Cultural Logic of Late Capitalism" that Postmodernism is defined by an "aesthetic populism, crossing the boundaries between high and low culture" (JAMESON, 1991: 2). As I discussed in the previous chapter, this is precisely what the Brazilian Popular Modernism does, achieving an aesthetic that we could certainly label populist. Moreover, it surely crosses the boundaries between high and low culture. Based on Jameson's argument, if such crossing happened in Brazil as early as the 1950s, should it be called "popular Post-modernism" instead? Was this Brazilian appropriation Post-modern a decade before Venturi and 25 years before the *Strada Novissima*?

Leaving this question unanswered until the next section of this chapter, I turn to the second universal issue at this point. How can Popular Modernism be located in a broader context of center versus periphery in the architectural realm?

As addressed in Chapter 1, one of the main current trends in architectural theory debates this center / periphery dichotomy. While architectural ideas (tending to the universal) are produced in very few places (London, Amsterdam, New York); all other places are reduced to "consumers" of architectural trends. Arguing against the cultural dangers of this reality, Kenneth Frampton proposed his *Critical Regionalism*. According to Frampton, the universal trends should be filtered and combined with local influences to

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generate an architecture that can respond both to local culture and universal civilization. While I agree with the core of Frampton's proposal, I believe it has been misused and misinterpreted to an extent that undermines the whole idea. Instead of valuing regional architecture, *Critical Regionalism* has praised a few, hand-picked architects who are elevated to the status of culture representatives. Mario Botta in the Italian Switzerland, Alvaro Siza in Portugal, John and Patricia Patkau in British Columbia, Ricardo Legorreta in Mexico and a few others are said to represent entire cultures. Moreover, *Critical Regionalism* works only in one direction (from center to periphery), with little or no possibility for peripheral issues to return influence to the centers.

Under such a frame, Popular Modernism operates in the opposite direction than "Critical Regionalism". A large number of buildings have taken elements of "universal" modernism and recombined them with local trends, pinpointing which modernity to accept and which to reject. The facades, for instance, were composed to represent the owners' insertion into modernity (or at least their desire for such inclusion) while the plans deliberately refuse to concede to modern life and insist on a traditional layout that grounds the houses in the Brazilian reality of the 1950s. Even in the "modern" facades, as I have shown in Chapter 4, a combination of modern/tradition, high/low and local/universal prevails. But while those hybridizations align Popular Modernism with Frampton's *Critical Regionalism*, its main direction differs. The Brazilian houses that compose Popular Modernism were not designed by architects and therefore cannot be reduced to a single "signature" or style. While *Critical Regionalism* calls for architects to derive elements from the vernacular and re-articulate them into high-art buildings,

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Popular Modernism displays exactly the opposite flow. Elements of high architecture were appropriated by lay people and re-articulated into the vernacular.

If the high/low equation can be inverted, I need to investigate the possibility of inverting the center/periphery equation. In other words, how does one place Brazilian modernism in general and Popular Modernism specifically into this equation?

On one hand, Popular Modernism is rooted in both high-art and European modernism, aspects that are very much the core of modern architecture. This fact brings Popular Modernism closer to the center side of the equation. Even the Brazilian modern architecture that served as inspiration for the popular appropriation was not completely peripheral, being referenced in a lesser or higher degree in every compendium of modern architecture history. Therefore, Popular Modernism has strong connections with the center.

Such would not be the same if the influence of the vernacular and the traditional were not present in its formula. Both the vernacular (or low manifestation of lay people doing it by themselves) and the influence of traditional architecture are entirely peripheral, adding to the complexity of the location of this phenomenon. And such peripheral components are precisely what make it unique, differing from the Californian *Case Study Houses* for example. Therefore, Popular Modernism is essentially peripheral.

As discussed in terms of the other two major axes, high/low and modern/traditional, the phenomenon of Popular Modernism lies in the crossover space, being a hybridization also in terms of the center/periphery axis. This being said, the next section discusses the uniqueness of Popular Modernism addressing, if not answering, some of the questions raised throughout this dissertation.

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The Uniqueness of the Phenomenon

To talk about the uniqueness of the Popular Modernist phenomenon is to talk about the hybridization processes, the multiple dissemination of information and also about the way in which the houses reflect the split between progressive and conservative facets of Brazilian modernization. While those three factors have been analyzed before in the previous chapters, this section aims at integrating all those issues to conclude the arguments concerning the study of Popular Modernism.

Trying to address some of the questions raised throughout the dissertation, I face the problem of contextualizing the Brazilian thirst for modernity into this split modernization, a process that generated a modernist façade with a conservative interior. One very interesting hint about this issue came from Brian Owensby's analysis of the making of middle class lives in Brazil (OWENSBY, 1999). Owensby raises some key issues about Brazilian middle classes that reinforce what I have discussed in the previous chapters. For instance, he states that "the experience of being modern was mediated by the image of an idealized modernity located outside Brazil" (OWENSBY, 1999: 8). If the idealized modernity was something foreign, the Popular Modernist houses are even more inserted into the universal context, referring to something even further away from their daily lives. But Owensby responds, in the end of his book, stating that "middle class

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Brazilians have had a healthy appetite for devouring the images, products and aspirations of modernity" (OWENSBY, 1999: 249).

Renato Ortiz goes even further, arguing that Brazil has a culture of ornamentation or a culture of the façade that should be read as a desire for modernization (ORTIZ, 1988: 34). On the other hand, the conservative interior should be read as the permanence of a traditional way of living. Analyzing the colonial houses of the 18th century, Fernando Novaes points out that "in the interior the spaces were poorly defined and many functions overlapped in the same room" (NOVAES, 1997: 152). That is surely the case of the lower income houses analyzed in Chapter 4. Novaes continues, saying that "the colonial house has very little privacy and the poorer the family the less privacy" (NOVAES, 1997: 225), a trend that survived all the way into the Popular Modernism houses as confirmed by the plans analyzed in Chapter 4.

That brings us to another trend perceived in the Popular Modernist houses that resonates with the history of Brazilian modernism: rupture versus continuation. In the famous modernist buildings designed by architects, the rupture had to do with the free form while a continuation of the 18th century baroque was implied. In the case of the Popular Modernist houses, the façade is the realm of the rupture while the interior is the realm of continuation. The main issue then becomes why the Brazilian middle class felt comfortable changing their facades but hesitated to change their interior layout.

In response, I could argue that it was important to maintain a public façade of modernization while assuring control of the private life. This also speaks to the incomplete modernization as framed by Garcia Canclini (1995). However, it might be more fruitful to relate the façade/interior split not only to this incomplete modernization

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but also to the double faced Brazilian path towards modernization. Nevertheless, as suggested by Habermas, modernity is by definition incomplete, and modernization as its physical manifestation should not be complete either. Instead, it seems to me that the Popular Modernist houses relate to this double faced modernization more than to the idea of exuberant modernism with deficient modernization. It is not a case of arguing that Brazilian modernization was not deficient nor incomplete (it certainly was in many terms), but suggesting rather that the conservative/progressive dichotomy has existed from the beginning and will continue to exist. Garcia Canclini's idea of "incompletion" implies that modernization evolves towards completion, and suggests one kind of modernization to be achieved. All other modernizations would then be labeled deficient. What seems more fruitful to discuss from the Brazilian Popular Modernist point of view (which might be extended to Brazilian architecture in general) is that this ongoing modernization will always be the result of conflicts and negotiations between progressive and conservative forces. Renato Ortiz again provided the insight for this idea when he wrote that "Brazilian modernism, throughout the 20th century, adapts itself to the development of its own society"[3] (ORTIZ, 1988: 206). Popular Modernism was surely an adaptation to the Brazilian society of the 1950s. An adaptation that left a fascinating materialization in the shape of houses.

At this point, I should return to Habermas and the idea that modernity is also an outcome of what he calls reflective treatment of tradition. Differing from the modernist proposal of *tabula rasa* or the erasure of the past, the reflective treatment of tradition here implies a choice about which tradition to keep and which to discard. While the European

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[3] The original Portuguese quotation follows: O modernismo brasileiro, ao longo do século 20, se ajusta à

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avant-garde proposals choose to discard (at least on the level of discourse) all past experiences, Brazilian modern architecture chooses from the beginning which tradition to link itself to. If the architects lead by Lucio Costa made this choice quite consciously, the middle class made the same choice, but in an unconscious manner. The Brazilian middle class filtered the available traditions and used the one (interior layout) that served it better.

But if the reflective use of tradition illuminates the choice of a conservative interior, it offers little explanation of the choice of a modernist façade. To conclude discussing this other half of the phenomenon I should go back to the argumentation surrounding the appearance of Post-modernism, allowing me to address some of the issues related to the public façades' remarkable transformations.

A key to answer these questions comes from David Harvey. For Harvey, the modern is associated with production the same way that the Post-modern is associated with reproduction (HARVEY, 1989: 55). Again, Popular Modernism was clearly articulated around the idea of reproduction, with elements being freely re-applied in the facades. This framing of the facades phenomenon with a Post-modernist attitude cannot be absolutely accepted, although there is a Post-modern (or late modern) component there. Since the beginning of the century, intellectuals were already relating modernization with reproduction, at the same time the very idea of architectural modernism was being articulated. Walter Benjamin is one of those who perceived an early connection between modernism and reproduction. Writing specifically about art in the age of mechanical reproduction, Benjamin previewed a trivialization or "loss of the

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sociedade que se desenvolve (ORTIZ, 1988: 206).

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aura" of the work of art even before World War II. Writing after World War II, Theodor Adorno confirmed in his analysis much of the dangers that Benjamin envisioned three decades before.

But what is important here is to locate Popular Modernism in relation to this production/reproduction debate. To help frame my conclusions I will report on an encounter in Brazil in the mid 1950s. When in 1955 Walter Gropius visited Niemeyer's own house at Canoas (completed the previous year) he commented that the house was truly beautiful but could not be mass-produced. Gropius comments echoed for decades among Brazilian architects who saw his remarks as bitter criticism. Since little pre-fabrication was being used in Brazil, the country could not figure among the leading design nations despite the beautiful forms of its buildings.

What is interesting to perceive from this study of Popular Modernism is a striking gap between production and re-production. While Niemeyer's house could not be mass-produced as Gropius thought every house should be, its aesthetic was at that very same moment being re-produced in hundreds of thousands of middle class houses. Nevertheless, it is still debatable whether Gropius' designs had actually been disseminated to the extent he envisioned. I would conclude this section with the statement that escaping the modernist obsession with production, Brazilian modernism was massively re-produced, with processes and techniques adapted to the local reality. With the blending together of such contradictory trends, the Brazilian middle class may have built a unique kind of modernism with a Post-modern attitude.

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Lessons from the Study of Popular Modernism

From the two previous sections, one main issue arises: the location of Brazilian Popular Modernism into the larger context of the late 20th century architectural debate. Was the Brazilian middle class being prematurely Post-modernist, or have the techniques of collage and image re-production always been used in architectural dissemination while going unnoticed?

It seems more valuable to approach Popular Modernism as one more facet of this complex set of phenomena grouped together under the label of the Modern Movement. For the aspirations and the desires of the Brazilian middle class that built it are much closer to the programs and the demands of modernism than those of Post-modernism. But it is also inevitable to draw comparisons with the Post-modern movement in terms of attitude. I should take, for instance, Venturi's classic essay on *Complexity and Contradiction* (1966). Wouldn't Venturi's thesis apply to Popular Modernism? Or later, when he, Denise Scott Brown and Steven Izenour (1972) wrote *Learning from Las Vegas* praising the North-American strip as the ultimate vernacular, can't the same argument be translated as "Learning from Popular Modernism"? Not that I expect Venturi, Scott Brown and Izenour to value this Brazilian Popular Modernism, they do not seem to value the architectural qualities of Vegas. But yet they argue that there is something to be learned there. As Scott Brown wrote in another article, "the process of altering Modern architecture to make it acceptable to upper-middle and lower-middle taste publics is

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viewed by the architectural avant-garde as prettifying and selling out, a pyrrhic victory for Modern architecture" (SCOTT BROWN, 1977, p.49).

It is important to point out that I do not think Popular Modernism can be reduced to a pure Post-modern kind of phenomenon, being much more complex than that. But I may use the same argument raised by Venturi, Scott Brown and Izenour to defend the idea that Brazilian architects should learn from the middle class houses the same way that North American architects should learn from the strip.

Moreover, if one of the main arguments of the advocates of Post-modernism is that modernism has never been popular, how do we fit the Brazilian phenomena into this argumentation? One answer might be that Popular Modernism was an isolated phenomenon, pertinent only to Brazil and with little impact on the global architectural debate. But to accept this answer I would need to comply with the center/periphery directional relationship, in which there can be no counter-influence, and only the centers are worthy of study. Another answer might be that the Brazilian phenomena was not really popular, but then how do we explain the huge numbers with which those houses appear in most Brazilian cities, giving the impression that modernism has swept the entire landscape? A third answer might challenge how modern the Brazilian middle class houses were. The three answers have been debated in this and the in previous chapters, and it is clear that although the houses are not fully modernist, nor absolutely popular, nor totally peripheral, the soul of the phenomenon touches modernism, popularity, and refers to the central architectural debate.

Therefore, what I want to propose is an inversion of the question. Instead of asking how to fit the Brazilian Popular Modernism into a broader architectural debate, I

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ask why modernism has not been popular in the US or Europe. I am convinced that the answer has to be site-specific and therefore it seems less a problem of the modernist paradigm and more one of its local implementation. It is not a case of arguing that modernism was a perfect proposal, much less of denying the repetitive nature of most modernist buildings or the boring echoing of the International Style. Not to mention the disastrous modernist experiments on urbanism whose inheritance still haunts most of the big cities around the world. What I want to take as a lesson from the study of Popular Modernism is the question of whether modernism could have been popular if some of the favorable conditions that existed in Brazil had occurred (or allowed to occur) in other places as well. Among those conditions I should highlight from this study: the governmental support, the articulation of architects around the modernist proposal, the media embrace of modernization as a marketing strategy, the middle class thirst for modernization, and the interactions between the high and popular art realms. It does not seems fruitful to speculate if or how those conditions could have lead to a similar acceptance of modern architecture in North America or Europe. Rather, it seems more pertinent to discuss whether there is something inherent to the modernist paradigms that make it unpopular. This might be one of the conclusions from the study of Popular Modernism.

Another important lesson from this study is to reflect on the impact that architectural scholars and teachers can have on the practice of architecture. Reflecting on the Brazilian case, Renato Ortiz discusses the role of intellectuals as identity builders, or what he calls "symbolic mediators, filters between the popular and the national". According to Ortiz, intellectuals are responsible for detaching cultural manifestations

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from their particular realm and articulating them in a transcendent totality (ORTIZ, 1985: 139). I see that as a challenge not only for Brazilian scholars, but for anyone concerned about high/low interactions. It is particularly striking to note how Phillip Johnson and Robert Venturi impacted the perception of modernism in the U.S., for instance. As writers, curators, teachers and jurors, both men acted as intellectuals filtering how modernism should be portrayed. The same is true in the Brazilian case, for Lúcio Costa's writings and teachings left a tremendous impact on modernism's articulation and ultimately in its success and acceptance by the general public.

Therefore, rather than glorifying the phenomenon of Popular Modernism or substituting it for the paradigmatic examples of good architecture, the goal of this study is to serve as a bridge, a path worth following for understanding its complex location and context. Dealing with dichotomies of high/low, modern/traditional and center/periphery in architecture, this dissertation aimed at analyzing the internal and external coherence of the phenomenon of Popular Modernism. From its internal perspective, the study of formal analysis and plan configuration tried to define the **"what"** of those houses. From its external issues, the investigation of the Brazilian context in the scholarly literature and the media discourse tried to discuss the **"why"** it happened. In-between the internal formal factors and the external contextual issues, the interviews with the inhabitants tried to reconstruct the **"how"** of the construction process.

It is my hope that this investigation of Popular Modernism will serve as a modest contribution to the Brazilian architectural scholarship and an even more modest addition to the current revision of the Modern Movement now in progress. But it is also my hope that it may encourage further research. It would be interesting, for example, to apply this

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methodological model in other Brazilian cities in order to check whether different influences by other modernist landmarks have generated different popular appropriations, if any. It would also be interesting to expand the study into the 1960s and investigate the evolution of popular architecture after the inauguration of Brasilia and the turmoil of 1963/64 that lead to the military dictatorship. Another vein that deserves further exploration is the investigation of similar phenomena in Mexico, Turkey, India and other "peripheral" countries with a strong modernist tradition.

In light of all that, I hope above all that architects will pay more attention to the ordinary buildings that surround us all in our daily life, for they might contain as many lessons as the famous paradigmatic ones.

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APPENDIX A.

Checklist used in field documentation

UNIVERSITY OF MICHIGAN / DOCTORAL PROGRAM IN ARCHITECTURE
Popular Modernism Field Research

Quarteirão No._____ Prado Filme No._____ Foto No._____

Casa No. _____ Rua_____ Obs:_____

Volume em trapézio (assimetria)	❑	❑	Volume quadrado (simetria)
Telhado invertido (borboleta)	❑	❑	Telhado triangular (2 ou 4 águas)
Marquise ou laje proeminente	❑	❑	Varanda com telhado (frente ou lado)
Colunas tubulares (estreitas ou em V)	❑	❑	Colunas largas ou de madeira
Azulejos ou pastilhas: cor_____	❑	❑	Revestimento em pedra ou pintura
Janelas assimétricas (tamanho_____)	❑	❑	Janelas simétricas (tamanho_____)
Brise-soleils , treliça ou cobogós	❑	❑	Cornija ou decoração de fachada
Outro elemento modernista relevante	❑	❑	Outro elemento tradicional relevante
_____			_____

❑ Apresenta sinais de reforma ou modificação?

❑ Está em boas condições de conservação?

❑ Deixou carta explicando sobre entrevista?

❑ Consta em alguns dos mapas de referência?

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APPENDIX B.

Excell tables with formatted data from the documentation

Form #	Neighboorhood	Block	Street	House #	Volume	Roof	Marquise / Varanda	Columns	Material	Windows	Shadowing device	Other	obs	Renovation	Conservation	Interview	RA check	RA enter
1004	Carlos Prates	CE	Av. Nossa sra. De Fátima	S/N	QR		M		PI 2° pav. sem rev.	SP			prédio 2 pav. 1°comércio2 °residência	Não	Ruim	Não	CL	CA
1005	Carlos Prates	CE	Av. Nossa sra. De Fátima	S/N									casa em p´ssimas condições de análise			Não	CL	CA
1006	Carlos Prates	CE	Av. Nossa sra. De Fátima	3028	TR	T		T	PI	SM		rampa de acesso		Não	Bom	Não	CL	CA
1007	Carlos Prates	CE	Av. Nossa sra. De Fátima	3010	irregular	escondido	M/V		PD/PI	AM			2 pav. 1°comércio. 2°resid.	Não	Bom	Não	CL	CA
601	Prado	PB	Chopin	S/N	QR	T	M		PD/PI	AP			2 pav./esquina	Não	Bom	Não	CL	CA
602	Prado	PB	Chopin	45	QR	T			PD muro	AP			2 pav./muro alto impede vista	Não	Bom	Não	CL	CA
603	Prado	PB	Chopin	35	QR	platibando escondе	VF embutida	CL	C/PD	AM			2 pav.	Não	Bom	Não	CL	CA
215	Prado	PA	Cuiabá	716	TR	T	AG	CL	PD/PI	AG				Sim acréscim segundo pav.	Bom	Não	CL	CA
216	Prado	PA	Cuiabá	706	QR	PL amianto	VF		PI	AG				Sim varanda frontal	Bom	Não	CL	CA
217	Prado	PA	Cuiabá	698	TR	T	AG		PI	AM	D frisos			Sim fechame alpendre lateral	Bom	Não	CL	CA
1113	Prado	PG	Cuiabá	520	Outros	T	AG	CL	PD/PI	AM	CJ/D			Não	Bom	Não	CA	CL
1114	Prado	PG	Cuiabá	514	QR	T	VF/VL(gar)	CL	PD/PI	SG				Não	Bom	Não	CA	CL
1115	Prado	PG	Cuiabá	504	QR	PL	(pilotis)	CL	PD/PI	AP		Prédio		Não	Bom	Não	CA	CL
1116	Prado	PG	Cuiabá	490	QR	PL	AG		PD/PI	SM	CJ/D			Não	Médio(pintura)	Não	CA	CL
1117	Prado	PG	Cuiabá	450	QR	PL			PI/chapisco	AP				Não	Bom	Não	CA	CL
320	Prado	PE	Cuiabá	626	TR	T	VL(garagem)/M/L		A(dec)/PD/PI	SM				Não	Bom	Não	CA	CL

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321	Prado	PE	Cuiabá	574	TR	T	AG		PI	AM	CJ		Não	Ruim	Não	C A	CL
322	Prado	PE	Cuiabá	586	QR	T(platib.)			A(dec)/PT(rosa)/PD/PI	AG			Não	Bom	Não	C A	CL
323	Prado	PE	Cuiabá	600	QR	PL	AG		PD/PI	SM	D	Sob rado	Não	Bom	Não	C A	CL
1515	Prado	X	Cuiába	424	TP	I	L	T	PI , PD	SM	CB	Rampa/Porta vidro	Gradil	Bom	Sim	C A	CL
218	Prado	PA	Cura d'ars	670	TR	T	VL	CL	PD/PI			muro alto impede visão	Sim volume lateral	Bom	Não	CL	CA
219	Prado	PA	Cura d'ars	658	T	T	VL embutida	CL	PI texturizada	AM	CB/D		Não	Bom	Não	CL	CA
220	Prado	PA	Cura d'ars	640	QR	platibanda escond	AG	CL	A decorados/LC	AMG		piso de marmorite rosa	Não	Bom	Não	CL	CA
221	Prado	PA	Cura d'ars	630	QR	platibanda escond	L	CL	A cinza azul branco	SG			Não	Bom	Sim	CL	CA
222	Prado	PA	Cura d'ars	620	TR	T	VL	CL	PI	AM		detalhe da grade da janela e da porta	Não	Bom	Não	CL	CA
223	Prado	PA	Cura d'ars	614	TR	T	VL		PD/PI/LC	AG		tijolo aparente	Não	Bom	Não	CL	CA
401	Prado	PA	Cura d'ars	604	QR	T	L	CL	A decorad azul	APG			Não	Bom	Não	CL	CA
402	Prado	PA	Cura d'ars	558	QR	T			A estamp azul/PT amarel	SM			Não	Bom	Não	CL	CA
403	Prado	PA	Cura d'ars	S/N	TR	T	VL	CL	PD/PI	AM			Não	Ruim	Não	CL	CA
404	Prado	PA	Cura d'ars	S/N	TR	T	VL/VF	CL	PD/PI	AG			Não	Bom	Não	CL	CA
405	Prado	PA	Cura d'ars	548	TP	U	M		PD/PI	SM		garagem later	Não	Bom	Sim	CL	CA
406	Prado	PA	Cura d'ars	S/N	TR	T	VL/VF	CM	PI	SM		tijolo aparo	Não	Bom	Não	CL	CA
407	Prado	PA	Cura d'ars	530	QR	platibanda escond	M		PD/PI	AP			Não	Bom	Não	CL	CA
604	Prado	PB	Cura d'ars	378	TR	T	VF		massa texturizada	AM	D	arcos	Não	Bom	Não	CL	CA
605	Prado	PB	Cura d'ars	388	QR	T	VF	CM	PD	SM		tijolo aparente 2 pav.	Não	Bom	Não	CL	CA
606	Prado	PB	Cura d'ars	400	QR	T			PI	AG		panos de vidro 3 pav.	Não	Bom	Não	CL	CA
607	Prado	PB	Cura d'ars	410	QR	platibando escond	L		C amarel marro	AG		aberturas laterais na laje da garagem	Não	Bom	Não	CL	CA
608	Prado	PB	Cura d'ars	S/N	QR	telhado embutido	VF		C azul e branca	AP		prédio 4 pav.	Não	Bom	Não	CL	CA
609	Prado	PB	Cura d'ars	430	TR	T	VF/V		PI	AM			Não	Bom	Não		

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						L											CL	CA
610	Prado	PB	Cura d'ars	440	QR	platibando escond	L		C	SM		piso de caco de azulejo desenho de ondas		Não	Bom	Não	CL	CA
611	Prado	PB	Cura d'ars	450	QR	T	L		PD	SM	D			Sim piso externo	Bom	Não	CL	CA
612	Prado	PB	Cura d'ars	460	TR	T	VL	CL	PD/PI	AM			2pav.	Não	Bom	Não	CL	CA
613	Prado	PB	Cura d'ars	470	QR	T	AG		A azul branco/C	AP		porta de vidro grande		Não	Bom	Não	CL	CA
614	Prado	PB	Cura d'ars	480	TR	T	VF/VL	CL	PI	AM			muro alto impede vista	Não	Bom	Não	CL	CA
615	Prado	PB	Cura d'ars	490	QR	T	VF/VL	CM	A azule branco	AM	CB	tijolo aparente		Não	Bom	Não	CL	CA
1406	Prado	PD	Cura d'ars	485	TR	T	VL		PI				muro alto impede vista	Sim anexo lateral	Bom	Não	CL	CA
1407	Prado	PD	Cura d'ars	471	QR	platibanda escond	VL subtr volu	CL	C cinza	SM		tijolo apar		Sim	Bom	Não	CL	CA
1408	Prado	PD	Cura d'ars	443	irregular	T	VF	CL	PD/PI	SM	T	piso marmorite		Não	Bom	Não	CL	CA
1409	Prado	PD	Cura d'ars	429	TR	T			PD/PI	AM			muro alto impede vista	Não	Bom	Não	CL	CA
1410	Prado	PD	Cura d'ars	417	QR	T								Não	Bom	Não	CL	CA
1411	Prado	PD	Cura d'ars	407	TR	T	VL	CM	PD/PI			guarda-corpo	2 pav.	Não	Bom	Não	CL	CA
1412	Prado	PD	Cura d'ars	395	QR	não é visivel	M/alpendres no 2°pav.	CL	circulares	PD/PI	SM		rampas	2 pav.	Não	Bom	Sim	CL	CA
1413	Prado	PD	Cura d'ars	379	TR	T	VL embutida	CL	PD/PI	AM			2 pav.	Não	Bom	Não	CL	CA
1414	Prado	PD	Cura d'ars	370	QR	T	VL embutida	CL	PD/PI	SM				Não	Bom	Não	CL	CA
1508	Prado	PC	Cura D'ars	587	QR	PL	M		PI/chapisco	SP	CJ			Sim	Medio	Não	C A	CL
1509	Prado	PC	Cura D'ars	587	QR	PL	M/AG		A(marrom)/PI	SM	D			Não	Bom	Não	C A	CL
1510	Prado	PC	Cura D'ars	577	TR	T	AG		A(laranja)/PI	AM	CB	Arco		Não	Bom	Não	C A	CL
1511	Prado	PC	Cura D'ars	569	QR	PL	Outros(terraço)		PD/PI	SM	D			Sim(acresc.terraço)	Bom	Não	C A	CL
1512	Prado	PC	Cura D'ars	559	TR	T	VL(garagem)		PD/PI/Tij.aparente	SP		Arco		Não	Bom	Não	C A	CL
1513	Prado	PC	Cura D'ars	537	QR	PL	M/Sacada		PI/C	SP	D			Sim(terreo)	Ruim	Não	C A	CL
324	Prado	PE	Cura D'ars	677	TP	I	M	T	PD/PI	AM				Sim(divisão)	Bom	Sim	C A	CL
325	Prado	PE	Cura D'ars	655	TR	T	VF	CM	PI/Tij. aparente	SP		Porta vidro		Não	Bom	Não	C A	CL
326	Prado	PE	Cura D'ars	665	QR	PL	L(garagem)		PT(rosa)/PD/PI	SM	CB			Não	Bom	Não	C A	CL

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327	Prado	PE	Cura D'ars	641	QR	PL			PD/PI	SP/SM	D	Prédio		Não	Bom	Não	CA	CL		
1220	Prado	PH	Esmeralda	S/N	irregular	T	VL sem telhado	CL	PD/PI	AG	D frisos	piso em caco de azulejo		Sim garagem virou loja	Bom	Não	CL	CA		
1221	Prado	PH	Esmeralda	400	TR	T	AG		PD/massa texturizada	AM	D frisos	varanda cogumelo		Não	Bom	Não	CL	CA		
1222	Prado	PH	Esmeralda	406	QR	embutido	M/VF sem telhado		A azul e branco	SM	CB	tijolo aparente		Não	Bom	Não	CL	CA		
1223	Prado	PH	Esmeralda	417	QR		L		PD/PI	AM				Sim garagem	Bom	Não	CL	CA		
1224	Prado	PH	Esmeralda	424	TP	U	L	T	PD/PI	AM	T/D			Não	Bom	Sim	CL	CA		
1225	Prado	PH	Esmeralda	434	QR	platibanda esconde telhado		AG	A branco e rosa/C marrom					Não	Bom	Não	CL	CA		
1401	Prado	PH	Esmeralda	448	QR	T	M		PI chapisco	SM			prédio 2 pav.1°res. 2°com.	Não		Não	CL	CA		
1402	Prado	PH	Esmeralda	460	QR	embutido	V 2°pav.		PI	AM			prédio 2 pav.1°res. 2°com.	Não	Ruim	Não	CL	CA		
1118	Prado	PG	Esmeralda	604	QR	PL	M V F(flage)		PI	SM	D	Sobrado		Sim	Bom	Não	CA	CL		
1119	Prado	PG	Esmeralda	600/596	QR	PL	M		PI	SM	D	Sobrado		Sim	Bom	Não	CA	CL		
1120	Prado	PG	Esmeralda	582	Outros	T	AG		PI	AM	CB			Não	Bom	Não	CA	CL		
1121	Prado	PG	Esmeralda	564	QR	T(platib.)			PI	SM	D			Sim(anexo lat.)	Bom	Não	CA	CL		
1122	Prado	PG	Esmeralda	550	Outros	T(platib.)			PI	SM	D			Não	Bom	Não	CA	CL		
1123	Prado	PG	Esmeralda	542	TR	T	VF	CM	PI/chapisco	SP				Não	Bom	Não	CA	CL		
1124	Prado	PG	Esmeralda	534	QR	T	VE		A(az.)/PD	AM		Rampa/Gar.e terraço		Não	Bom	Sim	CA	CL		
1125	Prado	PG	Esmeralda	522	QR	T(platib.)	VE		A(br)/PI/LC	AP		Rampa/Gar.e terraço		Sim(gradil e pintura)	Bom	Não	CA	CL		
1126	Prado	PG	Esmeralda	512	QR	PL	Outros(terraço)	CM	PD/PI/LC/Tij.Pintado	AM	CB			Sim(terraço)	Bom	Não	CA	CL		
1127	Prado	PG	Esmeralda	492	QR	PL	M		PT(color.)/PD	SP		Prédio		Não	Bom	Não	CA	CL		
1212	Prado	PH	Nepomuceno	451	TR	T	VF embutida	CL	PD/PI	AM		piso marmorite e caco de azulejo		Não	Bom	Não	CL	CA		
1213	Prado	PH	Nepomuceno	431	TR	T	VL embutida	CL	PD/PI	SM		beiral largo trabalhado		Sim fechamento da garagem	Bom	Não	CL	CA		
1214	Prado	PH	Nepomuceno	421	QR	cobertura			PD/PI	SM			prédio 5 pav.	Não	Bom	Não	CL	CA		
1215	Prado	PH	Nepomuceno	415									lote vazio em deconstrução	inicio		Não	CL	CA		
1216	Prado	PH	Nepomuceno	S/N	TP	I	L		PD/PI	AM		piso marmorite e rampa de acesso		Não	Bom	Sim	CL	CA		
1217	Prado	PH	Nepomuceno	395	QR	T			PI	SM	D frisos			Não	Bom	Não	CL	CA		
1218	Prado	PH	Nepomuceno	387	QR	escondido		T	Abranco e rosa/PD/PI	AM	CB		prédio 2 pav.	Não	Médio	Não	CL	CA		

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114	Prado	PF	Nepomuceno	485	QR	PL	Outros		A(dec)/PD/PI	SP	Outros(pergula)	Muro alto		Não	Bom	Não	CA		CL
115	Prado	PF	Nepomuceno	495	QR	PL	Outros(sacada)		PD/PI	AP/AM/AG		Prédio		Não	Bom	Não	CA		CL
116	Prado	PF	Nepomuceno	505	TR	T			PD/PI	SM	D			Não	Bom	Não	CA		CL
117	Prado	PF	Nepomuceno	515	QR	PL(platib.)	VE/AG		PD/PI	SP/SM	D			Não	Médio(pintura)	Não	CA		CL
118	Prado	PF	Nepomuceno	527	TR	T	VE	CL	PD/PI	SP		Arcos		Não	Bom	Não	CA		CL
1824	Carlos Prates	CA	Nossa senhora de fátima	3110	QR	platibanda esconde telhado			PI	APM			2 pav.	Não	Ruim	Não	CL		CA
1825	Carlos Prates	CA	Nossa senhora de fátima	S/N	QR	T	VF	CL	PI	SM			2 pav.	Sim	em reforma	Não	CL		CA
1826	Carlos Prates	CA	Nossa senhora de fátima	S/N	QR								lote vago com muro alto			Não	CL		CA
515	Carlos Prates	CC	Nova Lima	12	QR	PL	M/Outros(sacada)		A(dec)/PD	AG		Sobrado		Não	Bom	Não	CA		CL
516	Carlos Prates	CC	Nova Lima	s/nº								Muro alto				Não	CA		CL
517	Carlos Prates	CC	Nova Lima	38	QR	T	VE	CL	PD/PI/C(br)	SM		Muro alto		Não	Bom	Não	CA		CL
518	Carlos Prates	CC	Nova Lima	40	QR	T(platib.)	M/AG		A(dec)/PD/PI/Tij.aparente	AM	D			Não	Bom	Não	CA		CL
519	Carlos Prates	CC	Nova Lima	52	QR	PL(platib.)	VF		A(dec)/Tij.aparente	AP		Muro visão	impede	Não	Ruim	Não	CA		CL
520	Carlos Prates	CC	Nova Lima	66	T	T	AG		PD/PI/Tij. Aparente	SP	D	Arco		Não	Bom	Não	CA		CL
521	Carlos Prates	CC	Nova Lima	70	TR	T					CJ	Muro alto		Não	Ruim	Não	CA		CL
522	Carlos Prates	CC	Nova Lima	76	TR	T						Muro alto				Não	CA		CL
523	Carlos Prates	CC	Nova Lima	88	QR	PL	VE	T	A(dec)/PI/LC	AM		Porta vidro	peq.	Não	Ruim	Não	CA		CL
524	Carlos Prates	CC	Nova Lima	96	TR	T(platib.)	AG		PD/PI	SM	CJ D	Arcos/calçada	ondas	Não	Bom	Não	CA		CL
525	Carlos Prates	CC	Nova Lima	106	Outros	T(platib.)			A(dec)/PD/PI	SM	CB/D			Sim	Ruim	Não	CA		CL
526	Carlos Prates	CC	Nova Lima	116	Outros	T(platib.)	AG		A(dec)/PD	AP		Arco		Sim (revestimento)	Ruim	Não	CA		CL
527	Carlos Prates	CC	Nova Lima	307	QR	PL	M/Outros(sacada)		PI	AM/AG	CJ	Sobrado		Não	Ruim	Não	CA		CL
1613	Carlos Prates	CE	Padre Eustáqui	221	TP	U			PI				galpão esquina	Sim	Ruim	Não	CL		CA
1614	Carlos Prates	CE	Padre Eustáqui	227	irregular	platibanda escond	M/VF		PI	SP	D frisos		prédio 2 pav. 1°comércio. 2°residência	Não	Médio	Não	CL		CA
1615	Carlos Prates	CE	Padre Eustáqui	241	TR	T	VL embutida	CL	PI	AM			restaurante	Não	Médio	Não	CL		CA
1616	Carlos Prates	CE	Padre Eustáqui	249	irregular	T			PI	AP	D frisos		comerciai	Não	Ruim	Não	CL		CA
1617	Carlos Prates	CE	Padre Eustáqui	265	QR	cobertura			PT branca e verde	SP			prédio 9 pav.	Não	Bom	Não	CL		CA

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1618	Carlos Prates	CE	Padre Eustáqui	281	TR	platibanda escond	M		PI		D frisos	comércio	Não	Ruim	Não	CL	CA					
1619	Carlos Prates	CE	Padre Eustáqui	291	irregular	platibanda escond	M		PI	APG	D frisos		Sim janelas foram fechadas	Ruim	Não	CL	CA					
915	Carlos Prates	CF	Padre Eustâquio	194	QR	PL			PI			Barracão	Não	Ruim	Não	CA	CL					
916	Carlos Prates	CF	Padre Eustâquio	s/nº	QR	PL	VF	T	PI	AG		Restaurante	Sim	Médio	Não	CA	CL					
917	Carlos Prates	CF	Padre Eustâquio	214	QR	PL	M.Outros (sacada)		A(br)/PI	SP		Arcos/Sobrado	Sim(anexo)	Ruim	Não	CA	CL					
918	Carlos Prates	CF	Padre Eustâquio	230	TR	T	VF	CM	PI	SM	D(col.gregas)		Não	Bom	Não	CA	CL					
919	Carlos Prates	CF	Padre Eustâquio	242	TP	U			A(dec)/PT(azul)	SP	D	Sobrado	Sim(telhado)	Ruim	Não	CA	CL					
920	Carlos Prates	CF	Padre Eustâquio	252	QR	PL	M		C(bege, marrom)	SG/SP			Não	Bom	Não	CA	CL					
713	Carlos Prates	CC	Padre Eustâquio	s/nº	Outros	T(platib.)	M/AG		A(col)/PD/PI		D		Não	Ruim	Não	CA	CL					
714	Carlos Prates	CC	Padre Eustâquio	310	QR	T(platib.)			PI		D		Não	Ruim	Não	CA	CL					
715	Carlos Prates	CC	Padre Eustâquio	324	Outros	T			PI/Tij. aparente		D		Não	Ruim	Não	CA	CL					
716/717	Carlos Prates	CC	Padre Eustâquio	334	QR	PL	M	CL (cones)	PT(lilas,am,pr)/PD/PI	SG	CB	Prédio	Não	Médio	Não	CA	CL					
718	Carlos Prates	CC	Padre Eustâquio	344	QR	PL	M	CL	PD/PI	SP	D	Sobrado	Não	Ruim	Não	CA	CL					
719	Carlos Prates	CC	Padre Eustâquio	354	QR	PL	M		A(dec)/PD/PI	SP/SM		Sobrado	Não	Ruim	Não	CA	CL					
1721	Carlos Prates	CB	Padre Eustâquio	387	QR	PL			A(marrom)	SM		Prédio	Não	Bom	Não	CA	CL					
1722	Carlos Prates	CB	Padre Eustâquio	379	TR	T	VL	CL	chapisco	SM	D	Arco	Não	Bom	Não	CA	CL					
1723	Carlos Prates	CB	Padre Eustâquio	367	QR	PL	M		PI	AG	CB/D	comércio Porta vidro	Não	Bom	Sim	CA	CL					
1724	Carlos Prates	CB	Padre Eustâquio	345	QR	PL	M		PI			com erci o	Não	Ruim	Não	CA	CL					
1601	Carlos Prates		Rio Casca	571	QR	PL	L forma varanda fronta	T	PT azul/PD	AG		porta de vidro grande/terraco sobre a laje	Sim acréscim cobertur amianto garagem	Bom	Sim	CL	CA					
1008	Carlos Prates	CE	Rio Casca	S/N	irregular				PI	AM	D frisos	casa em processo de demolição	Demoliçã o		Não	CL	CA					
1009	Carlos Prates	CE	Rio Casca	588	QR	T	VF	CM	PD/PI	SM		2 pav./sem foto	Não	Bom	Não	CL	CA					
1010	Carlos Prates	CE	Rio Casca	676	QR	T	AG	CL	PI	AM	D frisos		Não	Ruim	Não	CL	CA					
1011	Carlos Prates	CE	Rio Casca	668	TR	T			PD/PI	SM	D frisos		Sim acréscimo lateral	Ruim	Não	CL	CA					
1012	Carlos Prates	CE	Rio Casca	652	TR	T	VL	CL	PI	AM		centro espirita	Não	Ruim	Não	CL	CA					
1013	Carlos Prates	CE	Rio Casca	642	irregular	T	VF subtração do volume		PI	AM		2 pav.	Não	Bom	Não	CL	CA					
1014	Carlos	CE	Rio Casca	630	TP	U	L	CL	A azul	AM			Não	Bom	Sim							

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	Prates					forma varanda later		e branco/ PD/PI									CL	CA
1015	Carlos Prates	CE	Rio Casca	626	QR	T	VL		PT vinho	SM	D frisos	3 pav./Sra. Gripina	Não	Bom	Não	CL	CA	
1016	Carlos Prates	CE	Rio Casca	616	QR	T			PD/PI	SM	D frisos	2 pav.	Não	Bom	Não	CL	CA	
1017	Carlos Prates	CE	Rio Casca	602	TR	T			PD/PI	SM		2 pav.	Não	Bom	Não	CL	CA	
1018	Carlos Prates	CE	Rio Casca	S/N								casa sem condições de análise			Não	CL	CA	
	Carlos Prates	CE	Rio Casca	580								casa sem condições de análise/sem foto			Não	CL	CA	
1019	Carlos Prates	CE	Rio Casca	570	QR	T	AG	TV	C bege/PD	AG		porta de vidro	Sim revestimento novo	Bom	Não	CL	CA	
1020	Carlos Prates	CE	Rio Casca	560	QR	escondido	VF embutida	CL	A decorados	SM		estrutura alumínio metálico forma 3° pav.	Sim acéscimo 3° pav.	Bom	Não	CL	CA	
1021	Carlos Prates	CE	Rio Casca	550	QR	T	VF	CL	PD/PI	AM			Não	Bom	Não	CL	CA	
1022	Carlos Prates	CE	Rio Casca	538	TR	T	VF alpendre fechado		LC/PD /PI/	AM	CB	rampa de acesso curva/terraço sobre a garagem	Não	Bom	Não	CL	CA	
1023	Carlos Prates	CE	Rio Casca	526	QR	T	AG		A estampado/LC /PD	AG		rampa de acesso/ terraço sobre a garagem/ porta de vidro	Não	Bom	Sim	CL	CA	
1024	Carlos Prates	CE	Rio Casca	510	TR	T	VF	CL	PD/PI	AM		terraço sobre garagem/piso marmorite	Não	Bom	Não	CL	CA	
1025	Carlos Prates	CE	Rio Casca	498	TR	T	VF	CL	PD/PI	AM		rampa de acesso	Não	Bom	Não	CL	CA	
1026	Carlos Prates	CE	Rio Casca	480	QR	platibanda esconde telhado	recuop na laje forma pequena varanda		PD/PI	AG		terraço sobre garagem/porta em vidro/rampa acesso	Sim troca do portão da garagem	Bom	Sim	CL	CA	
1601	Carlos Prates	CE	Rio Casca	450	QR	T	VF	CL	PI	SM			Não	Bom	Não	CL	CA	
1602	Carlos Prates	CE	Rio Casca	444								galpão todo fechado	Não	Bom	Não	CL	CA	
1603	Carlos Prates	CE	Rio Casca	436	QR	I	L		PI	SM		piso em blocos de cimento formando ondas/muro alto	Sim acréscimos e toldos	Bom	Não	CL	CA	
1604	Carlos Prates	CE	Rio Casca	416	TR	T	VL	CL	PI/CL	SM	D frisos	terraço sobre a garagem	Sim cobertura terraço	Bom	Não	CL	CA	
1605	Carlos Prates	CE	Rio Casca	S/N								lote vago com barracão em lona/sem foto			Não	CL	CA	
1606	Carlos Prates	CE	Rio Casca	394	QR		LP		C bege/massa texturi	SP		prédio 8 pav.	Não	Bom	Não	CL	CA	
1607	Carlos Prates	CE	Rio Casca	380	QR	platibanda esconde telhado			C cinza e azul	SM		prédio 4 pav.	Não	Bom	Não	CL	CA	
1608	Carlos Prates	CE	Rio Casca	370	QR	cobertura			C bege e verde	AM		prédio 5 pav.	Não	Bom	Não	CL	CA	
1609	Carlos Prates	CE	Rio Casca	368	QR	embutido			A estampado/LC /chapis	AM		prédio 3 pav.	Não	Médio	Não	CL	CA	
1610	Carlos Prates	CE	Rio Casca	344	TP	I	AG		PD/PI	SG			Não	Bom	Sim	CL	CA	
1611	Carlos Prates	CE	Rio Casca	S/N								casa no fundo do terreno/muro e veg. Impedem			Não	CL	CA	

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														visão						
1612	Carlos Prates	CE	Rio Casca	342										centro espirita	galpão		Não		CL	CA
1602	Carlos Prates	Y	Rio Casca	465	TP	I	L(garg)	T V	PI , PD	SM	CB	Rampa			Não	Bom	Sim	CL	CA	
906	Carlos Prates	CF	Rio Casca	140	QR	PL(platib.)	AG	CL	PI/chapisco	SM	D				Não	Médio	Não	C A	CL	
907	Carlos Prates	CF	Rio Casca	s/nº	QR	PL(platib.)			PI	SM	D				Não	Médio	Não	C A	CL	
908	Carlos Prates	CF	Rio Casca	158	QR	PL(platib.)	AG	CL	PD/PI	SP	CJ	Arcos			Não	Médio	Não	C A	CL	
909	Carlos Prates	CF	Rio Casca	168	Outros	T	VF	C M	PD/PI	AP/AM/AG					Não	Bom	Não	C A	CL	
910	Carlos Prates	CF	Rio Casca	180	TR	T	AG		PD/PI	SM	D	Arcos			Não	Bom	Não	C A	CL	
911	Carlos Prates	CF	Rio Casca	202	TR	T	VL(garagem)	C M	PI/madeira	SM		Arcos			Não	Médio	Não	C A	CL	
912	Carlos Prates	CF	Rio Casca	218	QR	PL(platib.)			PI	SP		Anexo(oficina)			Não	Ruim	Não	C A	CL	
913	Carlos Prates	CF	Rio Casca	228	QR	PL	VE			AP/AM/AG		Prédio em construção			Não		Não	C A	CL	
914	Carlos Prates	CF	Rio Casca	230	QR	PL	M		PI(texturizado)	SG		Prédio			Não	Bom	Não	C A	CL	
1815	Carlos Prates		Rio Espera	446	TP	U	L forma varanda e garag	T	PT azul,branca forma flores)	APG		porta de vidro grande/ colunas de vidro			Não	Bom	Sim	CL	CA	
1623	Carlos Prates	CA	Rio Espera	227	TR	T	VF	CL	PD/PI	AG			muro impede visão		Não	Bom	Não	CL	CA	
1624	Carlos Prates	CA	Rio Espera	243	TR	T	VL/VF	CL	PI	AM					Não	Bom	Não	CL	CA	
1625	Carlos Prates	CA	Rio Espera	225	QR	escondido			PI/Cazul	SM			prédio 5 pav.		Não	Bom	Não	CL	CA	
1801	Carlos Prates	CA	Rio Espera	267	QR	telha metalica			Aamarele e laranja	AG			2 pav.		Sim acréscimo 2 pav.	Bom	Não	CL	CA	
1802	Carlos Prates	CA	Rio Espera	283	QR	telha metálica			PI	AM					Sim galpão metálico sobre a casa	Bom	Não	CL	CA	
1803	Carlos Prates	CA	Rio Espera	293	QR	platibanda escond	VF embutida	CL	Pi/chapisco/tijolo pintado	AG		terraço sobre a garagem/porta grande em vidro			Não	Bom	Não	CL	CA	
1804	Carlos Prates	CA	Rio Espera	303	QR	cobertura			C vinho e bege	SM			prédio 4 pav.		Não	Bom	Não	CL	CA	
1805	Carlos Prates	CA	Rio Espera	313	QR	escondido			PI/Cinza	SM					Não	Bom	Não	CL	CA	
1806	Carlos Prates	CA	Rio Espera	329	QR	T			PI/PD				muro impede visão		Não	Bom	Não	CL	CA	
1807	Carlos Prates	CA	Rio Espera	S/N	TR	T			PI	SM			polícia civil		Não	Bom	Não	CL	CA	
1808	Carlos Prates	CA	Rio Espera	363	TR	T	VF	CL	PI/A azul e branco	AM	CB/D frisos				Sim laje sobre a varanda	Ruim	Não	CL	CA	
1809	Carlos Prates	CA	Rio Espera	371	TR	T	VF	CL	PI	AM			muro impede visão		Não	Bom	Não	CL	CA	

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1810	Carlos Prates	CA	Rio Espera	403	QR	varanda U/platibanda esconde lha de amiant	PI							muro impede visão	Sim acréscimo da varanda	Ruim	Não	CL	CA		
1811	Carlos Prates	CA	Rio Espera	407	QR	platibanda esconde telhado			PI/Arosa e branco					muro alto impede visão	Não	Bom	Não	CL	CA		
1812	Carlos Prates	CA	Rio Espera	S/N	QR	platibanda escond	VF embutida	CL	PD/PI	SM	CB	port vidr grande		2 pav.	talvez o revestimentode ardósia	Bom	Não	CL	CA		
1813	Carlos Prates	CA	Rio Espera	431	QR	platibanda escond e telhado	L garagem		A verde/ PD	AM	CB	piso de marmorite com cacos			Não	Bom	Não	CL	CA		
1814	Carlos Prates	CA	Rio Espera	437	TR	T			PD/PI	AM	CB				Sim cobertura da garagem	Bom	Não	CL	CA		
1815	Carlos Prates	CA	Rio Espera	*sumiu*	QR										Não	Bom	Não	CL	CA		
1816	Carlos Prates	CA	Rio Espera	445	QR	platibanda	VL embutida		PI	AM					Não	Ruim	Não	CL	CA		
1817	Carlos Prates	CA	Rio Espera	455	TR	T	VL embutida	CL	QUAL	AM				muro impede visão	Não	Bom	Não	CL	CA		
1818	Carlos Prates	CA	Rio Espera	465	TP	U	VL	T	PD/PI	AM					Sim telhado na varanda	Bom	Não	CL	CA		
1819	Carlos Prates	CA	Rio Espera	S/N	irregular				PD/PI	APM					Não	Bom	Não	CL	CA		
1820	Carlos Prates	CA	Rio Espera	491	QR	escondido			PD mármore e granito	SM				prédio 5 pav.	Não	Bom	Não	CL	CA		
1821	Carlos Prates	CA	Rio Espera	505	irregular	platibanda esconde telhado			PI	SM	D frisos				Não	Bom	Não	CL	CA		
1822	Carlos Prates	CA	Rio Espera	521	irregular	platibanda esconde telhado			PD/PI	SM	CJ/D frisos				Sim puxado lateral	Bom	Não	CL	CA		
1823	Carlos Prates	CA	Rio Espera	531	QR	platibanda esconde telhado			PI	SM					Não	Ruim	Não	CL	CA		
1708	Carlos Prates	CB	Rio Espera	215	QR	T(platib.)	AG/terraço		PI	AM	D	Muro Alto/Gar.e terraço			Não	Bom	Não	C A	CL		
1709	Carlos Prates	CB	Rio Espera	203	QR	PL			PI/Tij. Aparente	AP		Galpão			Não	Bom	Não	C A	CL		
1710	Carlos Prates	CB	Rio Espera	193	QR	PL(platib.)		CL	A(br,cinz)/PI	SM		Prédio			Não	Bom	Não	C A	CL		
1711	Carlos Prates	CB	Rio Espera	179	QR	PL		CL	PD/PI	SM		Prédio			Não	Bom	Não	C A	CL		
1712	Carlos Prates	CB	Rio Espera	157	QR	PL	M/Terraço		PT(br)/ PI	SM	CB	Muro alto/porta vidro			Não	Bom	Sim	C A	CL		
1713	Carlos Prates	CB	Rio Espera	147	QR	T(platib.)	AG		PI/chapisco	AM/ AP					Não	Bom	Não	C A	CL		
1714	Carlos Prates	CB	Rio Espera	103								Muro Alto impede visão			Não	Ruim	Não	C A	CL		
1715	Carlos Prates	CB	Rio Espera	79	TP	I			PI			Muro Alto			Sim	Bom	Sim	C A	CL		
1716	Carlos Prates	CB	Rio Espera	65	TR	T	VF	CL	PI			Muro			Não	Bom	Não	C A	CL		

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1717/ 1718	Carlos Prates	Y	Rio Espera	40/48	TP	I	VE L		PI	AM/ AP		Alto 2 casas		Não	Ruim	Sim	C A	CL
1719	Carlos Prates	CB	Rio Espera	32	TP	I			PI	SM	D	Salão(gar)		Não	Ruim	Sim	C A	CL
1720	Carlos Prates	CB	Rio Espera	407	QR	T	Outros(terraço)	C M	PI	AP/AM/AG	D	Sob rado		Não	Ruim	Não	C A	CL
1201	Prado	PH	Rubi	483	QR	platibanda esconde telhado	AG	CL	PI	SM	D frisos	chapisco na base		Não	Bom	Não	CL	CA
1202	Prado	PH	Rubi	473	TR	T	VF	CL	PI	AM	D frisos			Não	Ruim	Não	CL	CA
1203	Prado	PH	Rubi	465	QR	cobertura	VF		C cinza/granito	AM			prédio 3 pav.	Não	Bom	Não	CL	CA
1204	Prado	PH	Rubi	453	TR	T	VL embutida no volume	CL	PD/PI	AM	D frisos /CB			Não	Ruim	Não	CL	CA
1205	Prado	PH	Rubi	443	QR	platibanda esconde telhado	VL embutida no volume		PD/PI			tijolo de vidro		Não	Bom	Não	CL	CA
1206	Prado	PH	Rubi	S/N	QR	cobertura	VL sem telhado		C bege/granito	AM			prédio 4 pav.	Não	Bom	Não	CL	CA
1207	Prado	PH	Rubi	419	TR	T			A xadrez/PT colorida	SM		beiral amplo	casa 2 pav. Muro alto impede visão	Sim	Bom	Não	CL	CA
1208	Prado	PH	Rubi	409	QR	escondido	VL sem telhado		C rosa e marrom/PT vinho	AP			prédio 4 pav.	Não	Bom	Não	CL	CA
1209	Prado	PH	Rubi	397	QR	T	VL embutida no volume		PI	AM		desenho da porta principal		Não	Bom	Não	CL	CA
1210	Prado	PH	Rubi	387	QR	T			A estampados/PD	AM		desenhos das grades e portão/tijolo aparente		Não	Bom	Não	CL	CA
1211	Prado	PH	Rubi	373	QR	platibanda	M		PD/PI				prédio 2 pav. Comercial/esquina	Não	Bom	Não	CL	CA
1102	Prado	PG	Rubi	515	QR	T			PI			Muro alto		Não	Ruim	Não	C A	CL
1103	Prado	PG	Rubi	525	QR	T	VF V L	CL	PD/PI	SM	D			Não	Bom	Não	C A	CL
1104	Prado	PG	Rubi	533	QR	PL	VF		PD/PI	AM	D	Arcos/balaustres		Não	Bom	Não	C A	CL
1105	Prado	PG	Rubi	545	TP	I			A(az,br)/C			Muro alto		Não	Bom	Sim	C A	CL
1106	Prado	PG	Rubi	557	QR	PL	M/VL(garagem)		PT(branco)	AM		Janela de madeira		Sim(muro)	Bom	Não	C A	CL
1107	Prado	PG	Rubi	565	TR	T			PI	SM	CJ			Não	Bom	Não	C A	CL

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1108	Prado	PG	Rubi	575	Outros	T	VF	CL	PI	SM	D			Não	Bom	Não	C A	CL
1109	Prado	PG	Rubi	587	QR	T	L(gar.e sacada)	CL (cilind.)	A(dec)/PT(br)/PD/PI	SM				Não	Bom	Não	C A	CL
1110	Prado	PG	Rubi	595	QR	T	VF/VL(garagem)	CL	A(dec)/PD/PI	SG				Não	Bom	Não	C A	CL
1111	Prado	PG	Rubi	603	TR	T	VF(garagem)		PI/A(muro)			Muro alto		Sim(muro)	Bom	Não	C A	CL
1112	Prado	PG	Rubi	619	QR	PL			A(az,br)/PD/Chap./Tij.ap.	AM	CB/D	Planos Grandes		Sim(Chapisco)	Bom	Não	C A	CL
310	Prado	PE	Rubi	522	QR	PL(platib.)	AG	CL	PI/chapisco	SM	D			Não	Ruim	Não	C A	CL
311	Prado	PE	Rubi	532	QR	PL	VE	CL	A/PT(preto)/PD/PI	AP/AG		Porta vidro		Sim(pintura)	Bom	Sim	C A	CL
312	Prado	PE	Rubi	s/nº	QR	PL	VE	CL	PD/PI/Tij. Aparente	AG		Porta vidro		Não	Bom	Não	C A	CL
313	Prado	PE	Rubi	552	QR	PL	VE		PI	SM		Muro alto		Não	Bom	Não	C A	CL
314	Prado	PE	Rubi	562	QR	PL	VE	CL	PT(branco)/PD/PI	SG		Muro alto		Não	Bom	Não	C A	CL
315	Prado	PE	Rubi	572	QR	PL	L	CL	PD/PI/Tij.aparente	SG		Porta vidro/Escada		Não	Bom	Não	C A	CL
316	Prado	PE	Rubi	582	TR	T	VF/VL(garagem)	CL	PD/PI	AP	D			Não	Bom	Não	C A	CL
317	Prado	PE	Rubi	592	TR	T	AG	CL	PD/PI	SM	CJ			Não	Bom	Não	C A	CL
318	Prado	PE	Rubi	602	TR	T	VF	CL	PD/PI	SM	D			Não	Bom	Não	C A	CL
319	Prado	PE	Rubi	612	TR	T	VE		PD/PI	SP	D	Rampa/G-corpo dec.		Não	Bom	Sim	C A	CL
102	Prado	PF	Rubi	486	TR	T	AG/VF	CL/CM	PI/Tij. aparente	SP		Arcos		Não	Bom	Não	C A	CL
103	Prado	PF	Rubi	474	TR	T	VF/VL(garagem)	CL	PD/PI	AM	CJ/D	Arcos		Não	Bom	Não	C A	CL
104	Prado	PF	Rubi	464	QR	PL	VE		PD	AP		Prédio		Não	Bom	Não	C A	CL
105	Prado	PF	Rubi	452-A	TP	I	VE	CL (cilind.)	PD/PI	SM		Porta vidro		Sim(garagem)	Bom	Sim	C A	CL
106	Prado	PF	Rubi	440	QR	U	VF	CM	PD/PI	AP		Arcos/Nova		Não	Bom	Não	C A	CL
108	Prado	PF	Rubi	430	TR	T	AG	CL	PD/PI(Texturizada)	SM	D	Arcos		Não	Bom	Não	C A	CL
110	Prado	PF	Rubi	420	QR	PL			PD/PI/Tij. Aparente	SM		Prédio		Não	Bom	Não	C A	CL

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111	Prado	PF	Rubi	402	QR	PL	Outros(sacada)	CL	PT(verde)/PD/PI/Tij. pint.	SM		Prédio		Não	Bom	Não	C A	CL
112	Prado	PF	Rubi	380	QR	PL			A(azul)/PI	AM		Prédio em construção		Não		Não	C A	CL
113	Prado	PF	Rubi	370	Outros	T/U	VL	CL	A(marrom)/PD/PI	SP				Sim(anexo)	Médio	Não	C A	CL
1415	Prado	PD	Safira	386	irregular	T	AG	CL	PD/PI	AM	D frisos			Não	Bom	Não	CL	CA
1416	Prado	PD	Safira	408	QR	platibanda escond	M		A azul/PD/LC	AG				Não	Bom	Não	CL	CA
1417	Prado	PD	Safira	420	TR	T	VL		PD/PI	AG		tijolo aparente		Não	Bom	Não	CL	CA
1418	Prado	PD	Safira	434	irregular	T	AG	CL	PD/PI	AM	D frisos			Não	Bom	Não	CL	CA
1419	Prado	PD	Safira	452	TR	T	AG	CL	PI	AM	D frisos			Não	Bom	Não	CL	CA
1420	Prado	PD	Safira	472	QR	T	AG	CL	PD/PI	AM		beiral amplo/peito de pombo		Não	Bom	Não	CL	CA
1421	Prado	PD	Safira	S/N	TR	T		CL	PD mármore	SM		igreja		Não	Bom	Não	CL	CA
1504	Prado	PC	Safira	534	QR	PL	L		A(azul)/LC/PD/PI	AM	CB			Não	Bom	Sim	C A	CL
1505	Prado	PC	Safira	544	TR	T			PI/PD/Tij.aparente	AM				Sim	Bom	Não	C A	CL
1506	Prado	PC	Safira	554	TR	T	L(garage sacada)	CL	PD/PI/Tij. Pintado	AM/AG				Não	Bom	Não	C A	CL
1507	Prado	PC	Safira	564	QR	PL	Outros(terraço)		PD/PI	AM/AG				Sim	Bom	Não	C A	CL
328	Prado	PE	Safira	617	TR	T	VL(garagem)	CM	PD/PI/Tij.aparente	SP				Não	Bom	Não	C A	CL
329	Prado	PE	Safira	s/nº	TP	PI.	L	T	A(az)/PD/PI	AG		Lage curva		Não	Bom	Não	C A	CL
501	Prado	PE	Safira	597	TR	T	VL	CL	PI	SM				Não	Bom	Não	C A	CL
503	Prado	PE	Safira	s/nº	TP	T	L(garagem)	CL	PD/PI	AP				Não	Bom	Sim	C A	CL
504	Prado	PE	Safira	577	QR	T	VE(garagem)		PD/Tij. aparente	SM		Arcos		Não	Bom	Não	C A	CL
505	Prado	PE	Safira	565	QR	T	VL(garagem)	CM	PD/PI/Tij.aparente	SP				Não	Bom	Não	C A	CL
506	Prado	PE	Safira	555	QR	PL(platib.)	L(garagem)		A(dec)/PI	SP	B			Não	Bom	Sim	C A	CL
507	Prado	PE	Safira	541	QR	PI.			PI			Galpão		Não	Ruim	Não	C A	CL
508	Prado	PE	Safira	525	QR	PL			PI	SP	D	Prédio		Não	Ruim	Não	C A	CL
119	Prado	PF	Safira	373	TR	T	VF	CM	PD/PI	SP	D			Não	Bom	Não	C A	CL
120	Prado	PF	Safira	389	Outros	T	VE	CL	PD/PI	SP	D			Não	Médio(pintura)	Não	C A	CL
121	Prado	PF	Safira	399	Outros	T	AG	CL	PD/PI	SP	D	Arc		Não	Bom	Não	C	CL

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												os					A		
122	Prado	PF	Safira	409	QR	T	Outros(terraço)	CM	PD/PI	AG				Sim(acresc.terraço)	Bom	Não	CA	CL	
123	Prado	PF	Safira	419	TR	T	VE/AG	CL	PD/PI	SM	D			Não	Bom	Não	CA	CL	
124	Prado	PF	Safira	431	QR	PL			A(br)/PT(marrom)	AP		Prédio		Não	Bom	Não	CA	CL	
125	Prado	PF	Safira	443	TR	T	VE/VL(garagem)	L	A(dec)	SP		Arcos		Não	Bom	Não	CA	CL	
126	Prado	PF	Safira	451	QR	PL(platib.)	L	T	A(az)/PT(br)/PD	SG	CB			Não	Bom	Não	CA	CL	
127	Prado	PF	Safira	461	QR	PL			A(laranja)/PD	SP		Prédio		Não	Bom	Não	CA	CL	
301	Prado	PF	Safira	473	TP	U		CL	PD/PI	AG	D	Arcos		Não	Médio(pintura)	Não	CA	CL	
302	Prado	PF	Safira	485	QR	PL	VL	CL	PD/PI	SM	D			Não	Ruim	Não	CA	CL	
303	Prado	PF	Safira	503	QR	PL(platib.)	Outros(sacada)		PD/PI	SM	CJ/D	Sobrado		Não	Ruim	Não	CA	CL	
2002	Carlos Prates	CA	Suaçui	480	QR	escondido	L/VL		PD/PI	AM	CB varandas	tijolo de vidro		Não	Bom	Não	CL	CA	
2003	Carlos Prates	CA	Suaçui	470	TR	T	VL		PI	AM	D frisos			Não	Médio	Não	CL	CA	
2004	Carlos Prates	CA	Suaçui	460	TR	T amianto	V embutida	CL					res. e com.	Sim acréscim volume / troca telhado	Ruim	Não	CL	CA	
2005	Carlos Prates	CA	Suaçui	450	TR	T	V embutida no volume		PI	AM	D frisos		muro alto impede visão	Não	Bom	Não	CL	CA	
2006	Carlos Prates	CA	Suaçui	440									muro alto impede visão			Não	CL	CA	
2007	Carlos Prates	CA	Suaçui	430	QR	T	V embutida	CL	PI	AP		porta grande	em vidro	Não	Médio	Não	CL	CA	
2008	Carlos Prates	CA	Suaçui	442									muro alto impede visão			Não	CL	CA	
2009	Carlos Prates	CA	Suaçui	412	TR	T	V embutida no volume		PI			piso de marmorite		Sim fechamento da varanda vidro	Bom	Não	CL	CA	
2010	Carlos Prates	CA	Suaçui	402	TR	T	VF	CL	C cinza/PD/PI	SM			casa 3 pav.	Não	Bom	Não	CL	CA	
2011	Carlos Prates	CA	Suaçui	349	TR	T	VF	CL	PI	AM/SM			2 pav.	Sim acréscimo 2 pav.	Bom	Não	CL	CA	
2012	Carlos Prates	CA	Suaçui	388	irregular	platibanda esconde telhado			PD/PI	AM				janela redonda	Bom	Não	CL	CA	
2013	Carlos Prates	CA	Suaçui	378	TR	platibanda escond	V embutida volume		PI	SM				Não	Bom	Não	CL	CA	
2014	Carlos Prates	CA	Suaçui	364	TR	T	VF	CM	PD/PI	AM		vitral		Não	Bom	Não	CL	CA	
2015	Carlos Prates	CA	Suaçui	S/N	TR	T			PI	AM	D frisos			Sim divisão da casa	Bom	Não	CL	CA	

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																duas/ acréscim janela						
2016	Carlos Prates	CA	Suaçui		338	QR	T	VF embutida no volume		PD/PI	SM					Não	Bom	Não	CL	CA		
2017	Carlos Prates	CA	Suaçui		S/N	QR	escond ido	L		PT colorid as	AG		porta vidr gran de	2 pav.		Não	Bom	Sim	CL	CA		
2018	Carlos Prates	CA	Suaçui		342	TP	U							muro alto impede visão		Não	Bom	Não	CL	CA		
2019	Carlos Prates	CA	Suaçui		316	irregul ar	T	VF	C M	PD/PI	AM			2 pav.		Não	Bom	Não	CL	CA		
2020	Carlos Prates	CA	Suaçui		306	QR	telha metálic a	VL embu tida no volu me	CL cili nd ric a	PI/C estamp ada/PD	AMG		ram pa de aces so	3 pav.		Sim acréscim o de andares	Bom	Não	CL	CA		
2021	Carlos Prates	CA	Suaçui		S/N									prédio em construção				Não	CL	CA		
2022	Carlos Prates	CA	Suaçui		S/N									muro alto impede visão				Não	CL	CA		
2023	Carlos Prates	CA	Suaçui		S/N									muro alto impede visão				Não	CL	CA		
2024	Carlos Prates	CA	Suaçui		256	TR	T	VF	C M	PI/C estamp ada/PD	AM					Não	Bom	Não	CL	CA		
2025	Carlos Prates	CA	Suaçui		244	TR	T	VF	V M	PI	SM					Sim acréscim o varanda	Bom	Não	CL	CA		
2201	Carlos Prates	CA	Suaçui		236	QR	platiba nda escond	V embutida volume		A estamp bege/m arrom	AM		passeio de cimento formando ondas/ sem foto			Não	Bom	Não	CL	CA		
2202	Carlos Prates	CA	Suaçui		224	QR	platiba nda escond	V embu tida volu	CL cili	PI	A	D	sem foto			Não	Bom	Não	CL	CA		
2203	Carlos Prates	CA	Suaçui		3	QR	U	V embutida volume		PI	AM		sem foto			Não	Bom	Não	CL	CA		
1517	Carlos Prates	CB	Suassui		30	QR	PL	L/Ter raço	T	A(az)/ PD/PI/ Tij.pint ado	AM	CB	Porta vidro/Gar.e terraço			Sim	Bom	Sim	C A	CL		
1518	Carlos Prates	CB	Suassui		36	QR	PL(plat ib.)	AG	CL	A(rosa)/PI/L C	AG					Não	Ruim	Não	C A	CL		
1519	Carlos Prates	CB	Suassui		44	Outros	T	AG	CL	PI	SM	D				Não	Sim	Não	C A	CL		
1520	Carlos Prates	CB	Suassui		62	TP	U			A(rosa)/PI/ch apisco	SM					Sim(telh ado)	Ruim	Não	C A	CL		
1521	Carlos Prates	CB	Suassui		76	TR	T	AG	CL	PD/PI	SM	D				Sim(mur o)	Bom	Não	C A	CL		
1522	Carlos Prates	CB	Suassui		92	QR	T(plati b.)	AG		PI	SM	D				Não	Bom	Não	C A	CL		
1523	Carlos Prates	CB	Suassui		98						AP		Muro alto/janela circ.			Não	Bom	Não	C A	CL		
1524	Carlos Prates	CB	Suassui		110	Outros	T	AG/T erraç o	CL	PD/PI	SP	D	Arc o/m uro alto			Não	Bom	Não	C A	CL		
1525	Carlos	CB	Suassui		120	TR	T			PI	SP	D				Não	Ruim	Não	C	CL		

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	Prates															A	
1526	Carlos Prates	CB	Suassui	130	TR	T	L.Terraço	CL	PI/Tij. Aparente	SM	D	Colunas decoradas	Não	Bom	Não	CA	CL
1527	Carlos Prates	CB	Suassui	140	TR	T	AG		PI	AS	D		Não	Bom	Não	CA	CL
1526	Carlos Prates	CB	Suassui	156	QR	PL		CL	PI	AM		Prédio	Não	Bom	Não	CA	CL
1701	Carlos Prates	CB	Suassui	164	TR	T	VL	CL	PI	SM	D		Sim (janela)	Ruim	Não	CA	CL
1702	Carlos Prates	CB	Suassui	180	QR	PL		CL	A(dec)/PI	SM		Prédio	Não	Bom	Não	CA	CL
1703	Carlos Prates	CB	Suassui	196	QR	PL	VE/AG	CL (cilind.)	C(am)/PD/PI	AG	D		Sim	Bom	Sim	CA	CL
1704	Carlos Prates	CB	Suassui	208	QR	PL	I	CL	PI	SP		Em reforma	Sim	Ruim	Sim	CA	CL
1725	Carlos Prates	CD	Suassui	87	QR	T(platib.)	VE		A/PD/PI/Outros	SM		Porta vidro	Sim	Bom	Sim	CA	CL
901	Carlos Prates	CF	Teófilo Otoni	217	TR	T	VF	CM	PI	SM	D	Arcos/muro alto	Não	Bom	Não	CA	CL
902	Carlos Prates	CF	Teófilo Otoni	203	TR	T	AG		PI(texturizado)	SP	D	Arcos	Não	Médio	Não	CA	CL
903	Carlos Prates	CF	Teófilo Otoni	191	QR	PL(platib.)	VE	CL	PD/PI	AP	CB	Rampa	Sim(pedra)	Bom	Não	CA	CL
904	Carlos Prates	CF	Teófilo Otoni	175	TR	T	M	CL	PI	SP	D	Rampa	Não	Ruim	Não	CA	CL
905	Carlos Prates	CF	Teófilo Otoni	169	QR	U			PI	SG		Barracão	Não	Ruim	Não	CA	CL
528	Carlos Prates	CC	Teófilo Otoni	s/nº	QR	T	VL	CM	PI/chapisco	SM		Muro alto	Não	Bom	Não	CA	CL
701	Carlos Prates	CC	Teófilo Otoni	285	QR	T	VL	CL	PD/PI/Tij. Aparente	AG	CB	colunas jônicas	Sim (pedra)	Ruim	Sim	CA	CL
702	Carlos Prates	CC	Teófilo Otoni	275		T						Muro alto			Não	CA	CL
703	Carlos Prates	CC	Teófilo Otoni	255	Outros	T	AG	CL (cilind.)	PI	SP	D		Não	Bom	Não	CA	CL
921	Carlos Prates	CF	Trav. das flores	37	QR	PL	Outros(terraço)	C	PI	AP			Sim(terraço)	Bom	Não	CA	CL
923	Carlos Prates	CF	Trav. das flores	43	QR	PL	L	T	PD/PI	AM			Não	Bom	Sim	CA	CL
1705	Carlos Prates	CB	Travessa	s/nº	TP	U			PD/PI	SP		Abandonada	Não	Ruim	Não	CA	CL
1706	Carlos Prates	CB	Travessa	218	TP	U	AG		PI	AM	D	Porta vidro	Não	Bom	Não	CA	CL
1707	Carlos Prates	CB	Travessa	s/nº	QR	T	VF	CM	PI	SP		Arco	Não	Bom	Não	CA	CL
201	Prado	PA	Turfa	563	QR	platibanda escondendo telhado	M		PD	SM	D		Sim troca das janelas	Ruim	Não	CL	CA
202	Prado	PA	Turfa	575	QR	platibanda	platibanda			AM		terreno na	Não	Bom	Não	CL	CA

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						escond e telhado	proemine nte					fren te								
203	Prado	PA	Turfa	585	QR	assimét rico	platibanda esconde telhado			PD				Sim revestim ento em pedra	Bom	Não	CL	CA		
204	Prado	PA	Turfa	595	QR	platiba nda escond	L/AG			PD/PI				Não	Bom	Não	CL	CA		
205	Prado	PA	Turfa	603	QR	platiba nda escond	M/A G	T		PD/PI	AG	D frisos platib anda	pisp xadrez preto e branco	Sim ardósia entrada garagem	Bom	Sim	CL	CA		
206	Prado	PA	Turfa	609	QR	I	VF	C M		LC	AM		piso em pedra portuguesa de ondas	Sim varanda	Bom	Não	CL	CA		
207	Prado	PA	Turfa	619	TR	T2	VF	C M		PD/PI	SM			Sim abertura lateral	Bom	Não	CL	CA		
208	Prado	PA	Turfa	629	QR	platiba nda escond e telhado	platiband a proemine nte			C	AM			Não	Bom	Não	CL	CA		
209	Prado	PA	Turfa	639	QR					C	SM			Não	Bom	Não	CL	CA		
210	Prado	PA	Turfa	659	QR	T	AG			PI	AM	CB		Não	Bom	Sim Arivaldo Carvalho 334-8461	CL	CA		
211	Prado	PA	Turfa	S/N	TR	T	VF	C M		PI	AM	T		Não	Bom	Não	CL	CA		
212	Prado	PA	Turfa	691	TR	T	L/AG	CL		PI	AM	D frisos		Não	Bom	Não	CL	CA		
213	Prado	PA	Turfa	703	TR	T	VF			PD/PI	AM		varanda em arcos	Não	Bom	Não	CL	CA		
214	Prado	PA	Turfa	715	TR	T				PD/PI	AG	CJ		Sim muro alto em pedra	Bom	Não	CL	CA		
412	Prado	PB	Turfa	515	QR	jogo de volume s	telado embuti do	volume proemine nte forma marquise		PD/LC	AG		ram pa curv pérg ola	prédio 3 pav/esquina	Não	Bom	Não	CL	CA	
413	Prado	PB	Turfa	495	QR	jogo de volume s	I	L forma a garag varan da	CL	PI	AM				Sim troca de piso externo	Bom	Não	CL	CA	
414	Prado	PB	Turfa	485	TP	I	AG	CL		PI	AM	D frisos	mar mor ite/a bert ura na laje	o morador não fica em casa, só na hora do almoço	Sim troca da porta principal	Bom	Não	CL	CA	
415	Prado	PB	Turfa	475	TP	I	VF	CL cili nd ric a		PD/PI	AM				Sim acréscim o da varanda	Bom	Não	CL	CA	
416	Prado	PB	Turfa	465	TP	I	VL embu	CL		PI	AM				Sim garagem	Bom	Sim	CL	CA	

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							tida volume									foi fechada						
417	Prado	PB	Turfa	455	QR	I	L forma garag varanda	CL	PD/PI	AM						Não	Bom	Não		CL	CA	
418	Prado	PB	Turfa	447	QR	platibando esconde telhado	L forma a garagem		A estampado azul e branco/P azul	SG		tijolo aparente/mármore branco				Não	Bom	Sim		CL	CA	
419	Prado	PB	Turfa	427	QR	telhado embutido	VF		C/PD	AM			prédio res. 3 pav.			Não	Bom	Não		CL	CA	
420	Prado	PB	Turfa	411	TR	T	AG		PI texturizada	AM	D frisos	alpendre cogumelo				Não	Bom	Não		CL	CA	
421	Prado	PB	Turfa	407	QR	T	AG	CL	A estamp azul e branco/PD/PI	AM		porta de vidro grande/marmorite				Não	Bom	Sim		CL	CA	
422	Prado	PB	Turfa	389	TR	T	VL embutida volume	CL	PD/PI	AM						Não	Bom	Não		CL	CA	
423	Prado	PB	Turfa	369	TR	T	AG		PD/PI	AM		alpendre cogumelo				Sim acréscimo lateral	Bom	Não		CL	CA	
408	Prado	PA	Turqueza	678	TR	T	VF/VL	CM	PD/PI	AG	D frisos					Sim	Bom	Não	CL	CA		
409	Prado	PA	Turqueza	679	QR	platibanda escond	AG		A estampa azul e verde			porta de vidro grande				Não	Bom	Não	CL	CA		
410	Prado	PA	Turqueza	707	QR		M		LC/A estampado azul e branco	AG		port vidr grande	prédio 2 pav/padaria Romanina			Sim galpão estrutura metálica cobertur	Bom	Não	CL	CA		
411	Prado	PA	Turqueza	721	QR	platibanda escond	M		A estamp azul e branco	SM			prédio 2 pav			Não	Ruim	Não	CL	CA		
616	Prado	PB	Turqueza	S/N	irregular	T	cobertura em arco poliuretano		LC				paróquia			Não	Bom	Não		CL	CA	
1422	Prado	PD	Turqueza	S/N	TR	T			C branca verm. verde				comércio			Sim	Bom	Não		CL	CA	
1403	Prado	PH	Turqueza	436	QR	platibanda escond	L		PTbranca/LC/PD	AM			prédio 3 pav./sem foto			Não	Ruim	Não		CL	CA	
1404	Prado	PH	Turqueza	S/N									lote vazio em deconstrução			início		Não		CL	CA	
1405	Prado	PH	Turqueza	S/N	QR	escondido			PT branca	AG			prédio 3 pav.1°com.2° e 3°res.			Não	Bom	Não		CL	CA	
1514	Prado	PC	Turqueza	637	QR	T		CL	PI	SM/SG	D					Não	Bom	Não	C A	CL		
1101	Prado	PG	Turqueza	501	QR	PL	M		PI	SP	D					Não	Ruim	Não	C A	CL		
1128	Prado	PG	Turqueza	451	QR	PL	VE(garagem)		A(bege)/PI	AP/AG		Rampa/Pis				Não	Bom	Não	C A	CL		
1501	Prado	PG	Turqueza	463	QR	T	VL	CM	PI/LC	SM						Sim(garagem)	Bom	Não	C A	CL		

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1502	Prado	PG	Turqueza	473	TR	T	AG		PD/PI	SP		Arcos/Vidro color.		Não	Bom	Não	C A	CL	
1503	Prado	PG	Turqueza	483	TR	T	Outros(sacada)		Outros (Quartzo)	AP	CB			Não	Ruim	Não	C A	CL	
309	Prado	PE	Turqueza	527	TR	T	AG		PI	SM	CJ/D	Muro alto		Não	Bom	Não	C A	CL	
509	Prado	PE	Turqueza	595	QR	PL						Barracão		Não	Bom	Não	C A	CL	
510/511	Prado	PE	Turqueza	585	QR	PL	VE(garagem)		PI/Tij. aparente	SG	CB	Porta vidro		Não	Bom	Não	C A	CL	
512	Prado	PE	Turqueza	571	TR	T	VF/VL(garagem)	CM	PD/PI	SP/SG		Porta vidro		Não	Bom	Não	C A	CL	
513	Prado	PE	Turqueza	555	QR	T(platib.)	VE(garagem)		A(dec)/PT(col)/PD	AM				Não	Bom	Sim	C A	CL	
514	Prado	PE	Turqueza	539	TR	T	Outros(terraço)		PD/PI	SP				Não	Bom	Não	C A	CL	
304	Prado	PF	Turqueza	598-A								Muro alto				Não	C A	CL	
305	Prado	PF	Turqueza	s/nº	TR	T	VF	CL/CM	A(br)/PI		CJ/D	Restaurante		Sim	Bom	Não	C A	CL	
306	Prado	PF	Turqueza	570	TP	T			PI	SP	CJ/D			Sim	Bom	Não	C A	CL	
307	Prado	PF	Turqueza	s/nº	QR	PL(platib.)			A(dec)/PT(col)/PD	SG	D			Não	Ruim	Não	C A	CL	
308	Prado	PF	Turqueza	544	TR	T	VE	CL	PD/PI			Sobrado		Sim	Bom	Não	C A	CL	
617	Carlos Prates	CE	Uberlândia	458									Serralheria galpão sem elemento para análise	Não	Ruim	Não		CL	CA
618	Carlos Prates	CE	Uberlândia	444		U telha de amianto							galpão sem elemento para análise	Não	Ruim	Não		CL	CA
619	Carlos Prates	CE	Uberlândia	416	TR	T	AG		PI	SM		tijolo vazado		Não	Médio	Não		CL	CA
620	Carlos Prates	CE	Uberlândia	426	TR	telhado escondido	VF		C	SM			prédio res. 4 pav.	Não	Bom	Não		CL	CA
621	Carlos Prates	CE	Uberlândia	400	QR	T	VF	CM	PI	SM				Sim acréscimo da varanda	Bom	Não		CL	CA
622	Carlos Prates	CE	Uberlândia	388	TR	T	AG terraço sobre a garagem lateral		PI	SM	CB		muro alto impede visão	Sim terraço	Bom	Não		CL	CA
623	Carlos Prates	CE	Uberlândia	376	QR	T platibando frontal escond	VF	T	PT vinho/ LC/PD São Tomé	AG		pequena rampa curva para acesso principal		Não	Bom	Sim		CL	CA
624	Carlos Prates	CE	Uberlândia	366	TR	T telha de amianto	VF embutida	TV	PI	AM			muro impede visão parcial	Não	Bom	Não		CL	CA
625	Carlos Prates	CE	Uberlândia	354	TR	T	VF	CL	PI	SP				Não	Ruim	Não		CL	CA

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801	Carlos Prates	CE	Uberlândia	342	QR	T	AG	CL	A azul/PD/PI	SM		piso de caco cerâmico		Não	Bom	Sim	CL CA				
802	Carlos Prates	CE	Uberlândia	326	TR	T	VF		PI				casa no fundo do lote	Sim acréscimo da varanda	Bom	Não	CL CA				
803	Carlos Prates	CE	Uberlândia	326A	TR	T			PI texturizada	SM	D frisos	tijolo aparente		Não	Bom	Não	CL CA				
804	Carlos Prates	CE	Uberlândia	316	QR	T				SP		tijolo aparente	galpão	Não	Bom	Não	CL CA				
805	Carlos Prates	CE	Uberlândia	304	QR	T			A estampado br.am.lar./PD	SM				Não	Bom	Não	CL CA				
806	Carlos Prates	CE	Uberlândia	294	QR	T		C M	C azul				2 pav. muro alto impede visa	Sim acréscimo 2 pav.	Bom	Não	CL CA				
807	Carlos Prates	CE	Uberlândia	280	jogo de volumes		LP		PI	SP	D frisos		2 pav.	Não	Bom	Não	CL CA				
808	Carlos Prates	CE	Uberlândia	S/N	QR	platibanda esconde	184		PI				prédio res. 4 pav.	Não	Bom	Não	CL CA				
809	Carlos Prates	CE	Uberlândia	246	TP	U	VL/AG	CL	PI	AM				Sim acréscimo da varanda	Bom	Não	CL CA				
810	Carlos Prates	CE	Uberlândia	263	TP	U							muro alto impede visão	Sim acréscimo frontal	Ruim	Não	CL CA				
811	Carlos Prates	CE	Uberlândia	224	TR	T			PI	SM				Não	Bom	Não	CL CA				
812	Carlos Prates	CE	Uberlândia	S/N	TR	T			PI				muro alto impede visão	Não	Bom	Não	CL CA				
813	Carlos Prates	CE	Uberlândia	208	TR	T	AG		PI	AG	D frisos			Não	Bom	Não	CL CA				
814	Carlos Prates	CE	Uberlândia	194	QR	T	VL		PI	SP				Sim acréscimo lateral	Bom	Não	CL CA				
815	Carlos Prates	CE	Uberlândia	184	TR	T	L forma a garagem		PD/PI	SM				Não	Bom	Não	CL CA				
816	Carlos Prates	CE	Uberlândia	176	TP	platibanda esconde			PD/PI				barraco	Não	Ruim	Não	CL CA				
817	Carlos Prates	CE	Uberlândia	166	TR	T			PI	AM				Sim acréscimo do volume frontal	Bom	Não	CL CA				
818	Carlos Prates	CE	Uberlândia	154	QR	T							muro alto impede totalmente a visão				CL CA				
819	Carlos Prates	CE	Uberlândia	138	TR	T			PI	SM				Não	Bom	Não	CL CA				
820	Carlos Prates	CE	Uberlândia	130	TR	T			PI	SP		chapisco na base		Não	Ruim	Não	CL CA				
821	Carlos Prates	CE	Uberlândia	118	TP	U	L	T V	A rosae azul	AM		piso de marmorita com cacos mármore		Não	Ruim	Sim	CL CA				
822	Carlos Prates	CE	Uberlândia	S/N	QR	T	L forma a garagem		PD/PI	AM				Não	Ruim	Não	CL CA				
823	Carlos Prates	CE	Uberlândia	S/N									lote vago com muro			Não	CL CA				
824	Carlos Prates	CE	Uberlândia	78									em construção			Não	CL CA				
825	Carlos	CE	Uberlândia	68	TP	U	L	T/	PD/PI	AM		pequena rampa		Não	Bom	Sim					

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	Prates						forma varanda lateral	CL				curva de acesso				CL	CA	
1001	Carlos Prates	CE	Uberlândia	58	QR	platibanda esconde telhado			PI	SM		sem foto	Não	Ruim	Não	CL	CA	
1002	Carlos Prates	CE	Uberlândia	40								muro alto impede visão total			Não	CL	CA	
1003	Carlos Prates	CE	Uberlândia	30	QR	T	VF			SM		terraço 3 pav.	Sim terraço	Ruim	Não	CL	CA	
720	Carlos Prates	CF	Uberlândia	500	QR	PL(platib.)			PI	AP/SP	D	Sobrado	Não	Médio	Não	CA	CL	
721	Carlos Prates	CF	Uberlândia	522	QR	PL	M		PI	SM	D		Não	Ruim	Não	CA	CL	
722	Carlos Prates	CF	Uberlândia	530	QR	PL			A(dec)/PD/PI/LC	SM			Sim(pedra)	Bom	Não	CA	CL	
723	Carlos Prates	CF	Uberlândia	540	QR	PL(platib.)			PI/Tij. pintado	SM			Não	Bom	Não	CA	CL	
724	Carlos Prates	CF	Uberlândia	554	QR	PL	M		C(az)/PD	SM	D	Prédio	Não	Bom	Não	CA	CL	
725	Carlos Prates	CF	Uberlândia	564	TR	T			PI	SM			Não	Médio	Não	CA	CL	
726	Carlos Prates	CF	Uberlândia	576	QR	PL		CL	PT(marrom)/PD	SP/SM	D	Prédio	Não	Bom	Não	CA	CL	
727	Carlos Prates	CF	Uberlândia	598	QR	PL	AG		PI	AP S M			Não	Ruim	Não	CA	CL	
728	Carlos Prates	CF	Uberlândia	610								Terreno(muro alto)	Não		Não	CA	CL	
729	Carlos Prates	CF	Uberlândia	s/nº	QR	PL	M		PI	SM/SG		Igreja	Não	Bom	Não	CA	CL	
704	Carlos Prates	CC	Uberlândia	s/nº	Outros	T(platib.)	M	CL	PD/PI	SP	D	Arco/ col. gregas	Sim(pedra)	Bom	Não	CA	CL	
705	Carlos Prates	CC	Uberlândia	607	TR	T(platib.)	AG		PD/PI(Texturizada)	AM	CJ/D	Arcos	Não	Bom	Não	CA	CL	
706	Carlos Prates	CC	Uberlândia	595	TR	T	VL(toldo)	T	PI				Não	Ruim	Não	CA	CL	
707	Carlos Prates	CC	Uberlândia	581	QR	PL	M		PI	SP		Galpão	Não	Bom	Não	CA	CL	
708	Carlos Prates	CC	Uberlândia	571	QR	PL		CL	A(az)/PD/PI	SP		Prédio	Não	Bom	Não	CA	CL	
709	Carlos Prates	CC	Uberlândia	s/nº								demolida			Não	CA	CL	
710	Carlos Prates	CC	Uberlândia	545	QR	PL	AG		PD/Tij. aparente	SM			Sim (pedra)	Bom	Não	CA	CL	
711	Carlos Prates	CC	Uberlândia	531	TR	T	AG		PD/PI	SM	CJ	Arco	Não	Ruim	Não	CA	CL	
712	Carlos Prates	CC	Uberlândia	282	QR	PL	M/VE		PT(col)/PD/PI	SG		Prédio	Sim (lojas)	Médio	Não	CA	CL	

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APPENDIX C

History Table used in interviews

DOCTORAL PROGRAM IN ARCHITECTURE
Popular Modernism Field Research

Tabela de História da Residência Entrevista #____
Data_____

	Moradores anteriores	Configuração anterior 1	Configuração anterior 2	Configuração atual
Data				
Moradores				
Ocupação dos adultos				
Razões para mudança (1) e reformas (2 e atual)				

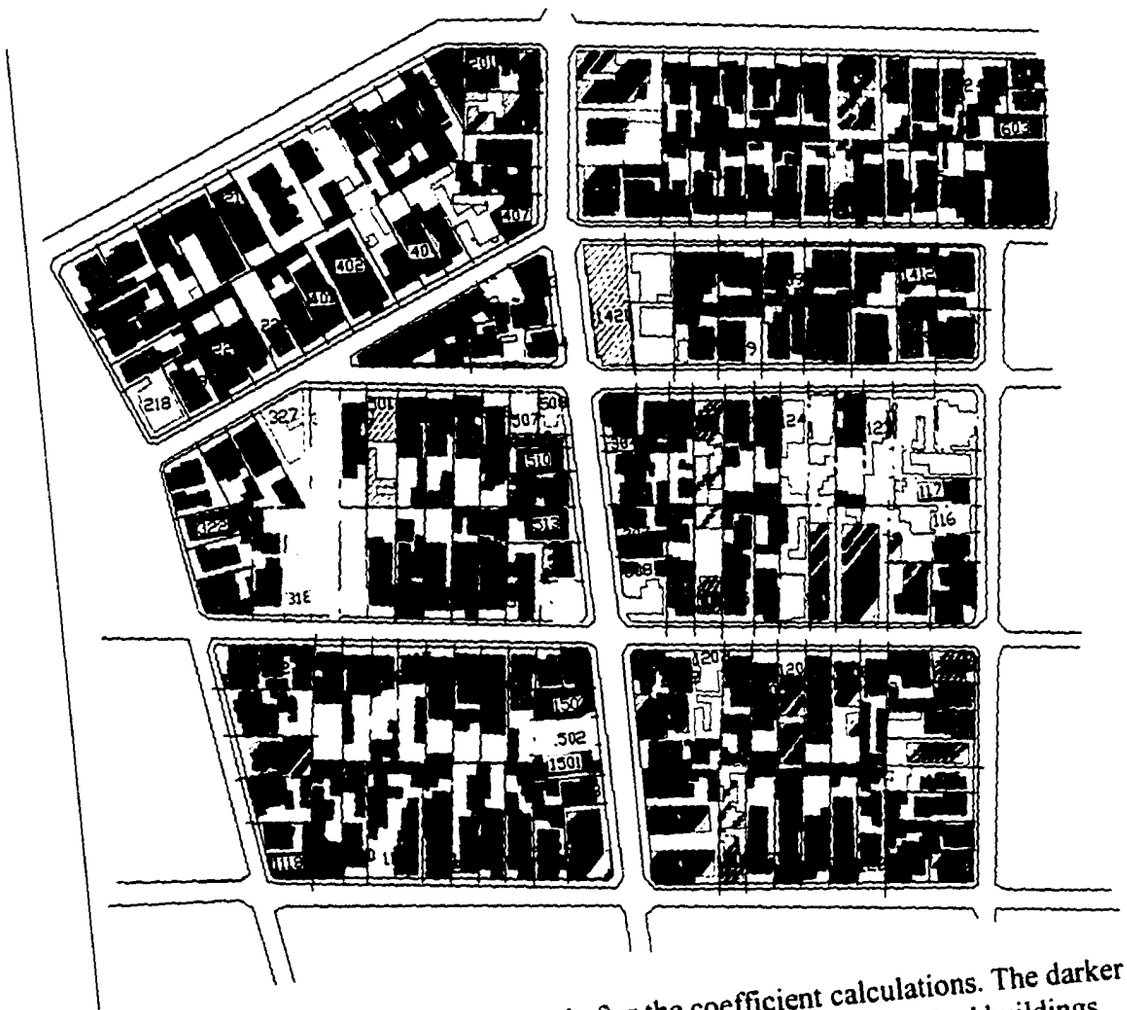
Escala de Satisfação - (1-2-3-4-5) +

Materiais	Funcionamento	Privacidade	Estética / Estilo	Manutenção	Disposição Interna	Disposição Externa

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APPENDIX D.

Maps resultant from field documentation after coefficient calculation



Resultant map of the Prado neighborhood after the coefficient calculations. The darker the house the most modernist, the lighter the most traditional. The hatched buildings indicate non-residential uses.

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Resultant map of the Carlos Prates neighborhood after the coefficient calculations. The darker the house the most modernist, the lighter the most traditional. The hatched buildings indicate non-residential uses.

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