THE MODERNIST CITY
AN ANTHROPOLOGICAL CRITIQUE OF BRASÍLIA

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Contents

TWO

Blueprint Utopia

Brasília serves in this book as a case study of the modernist city proposed in the manifestos of the Congrès Internationaux d'Architecture Moderne (CIAM). It embodies in form and organization CIAM's premise of social transformation: that modern architecture and planning are the means to create new forms of collective association, personal habit, and daily life. This chapter outlines basic features of the CIAM model city and places the design of Brasília within the historical context of avant-garde modernism.

2.1 Brasília's Pedigree

Brasília is a CIAM city. In fact, it is the most complete example ever constructed of the architectural and planning tenets put forward in CIAM manifestos. From 1928 until the mid-1960s, CIAM remained the most important forum for the international exchange of ideas on modern architecture. CIAM's meetings and publications established a worldwide consensus among architects on the essential problems confronting architecture, giving special attention to those of the modern city. Brazil was represented in the congress as early as 1930, and Brasília's architects Lúcio Costa and Oscar Niemeyer have practiced its principles with renowned clarity.[1]

That Brasília's design derives from CIAM proposals is easily demonstrated. Its most significant manifesto, *The Athens Charter*, defines the objectives of city planning in terms of four functions: "The keys to city planning are to be found in the four functions: housing, work, recreation (during leisure) and traffic" (Le Corbusier 1957 [1941]: art. 77). The last function, traffic, "bring[s] the other three usefully into communication" (ibid., art. 81). A later CIAM meeting augmented these to include a "public core" of administrative and civic activities. Planners refer to the organization of these functions into typologies of social activity and building form as zoning. What distinguishes modernist zoning from its precursors is the conception that

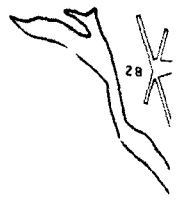
urban life may be understood for planning purposes in terms of these four or five functions and, more important, that they should be organized as mutually exclusive sectors within the city. Together with circulation, this organization determines both the internal order and the overall shape of the CIAM city.

Now consider the Plan of Brasília (figs. 2.1, 2.2): it is a perfect illustration of how the zoning of these functions can generate a city. A circulation cross of speedways determines the organization and shape of the city exactly as Le Corbusier (1971a[1924]: 164), the guiding hand of CIAM, proposes in an earlier publication: "Running north and south, and east and west, and forming the two great axes of the city, there would be great *arterial roads for fast one-way traffic*" (fig. 2.3). Residential superblocks are placed along one axis; work areas along the other. The public core is located to one side of the axial crossing. Recreation in the form of a lake and green belt surrounds the city. *Et voilà*—total city planning.

Next, compare views of Brasília with those of two ideal cities by Le Corbusier, A Contemporary City for Three Million Inhabitants of 1922 and The Radiant City of 1930 (figs. 2.4–2.13). These two projects became prototypes both for and of the CIAM model defined in *The Athens Charter*. Note the explicit similarities between the two and Brasília: the circulation cross of speedways; the dwelling units of uniform height and appearance grouped into residential superblocks with gardens and collective facilities; the administration, business, and financial towers around the central crossing; the recreation zone surrounding the city. Brasília's pedigree is evident.

I make these comparisons not to belittle either Costa's or Niemeyer's originality in giving final form to CIAM proposals. Every architectural project has its own history and anxiety of influence. Moreover, there are differences between Le Corbusier's projects and Brasília. For example, Niemeyer's architecture is distinctively lighter and more iconic than Le Corbusier's, and Costa's plan includes a public core—the fifth function which had not yet been identified when Le Corbusier designed his ideal cities. Nor are these comparisons meant to imply that Costa's Master Plan was not the most deserving of the 26 entries in Brasília's national design competition.[2] They are made simply to illustrate that the same model of urban order structures these cities; that this model is described in the CIAM rulebook; and that Brasília follows these rules with great clarity.

In addition to the formal evidence establishing Brasília as a CIAM city, there is the pedagogical: both Costa and Niemeyer are Le Corbusian progeny. Le Corbusier's (and therefore CIAM's) influence on the development of modern architecture



1. Plaza of the Three Powers
2. Esplanade of the Ministries
3. Cathedral
4. Cultural Sector
5. Entertainment Sector
6. Banking and Office Sector
7. Commercial Sector
8. Hotel Sector
9. Radio and TV Tower
10. Sports Sector
11. Municipal Plaza
12. Barracks
13. Railroad Station
14. Warehouses and Light Indu
15. University City
16. Embassies and Diplomatic
17. Residential Sector
18. Single-family Houses
19. Horticulture, Floricultur
20. Botanical Garden
21. Zoo
22. Golf Club
23. Bus Station
24. Yacht Club
25. Presidential Residence
26. Jockey Club
27. Area for Fairs, Circuses,
28. Airport
29. Cemetery

Fig. 2.1 Lúcio Costa,

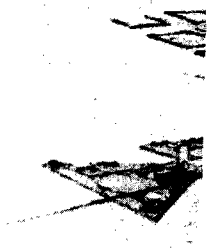


Fig. 2.2 Lúcio Costa, Urbanismo.

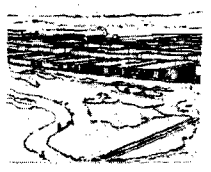


Fig. 2.3 Le Corbusie perspective sketch, 1

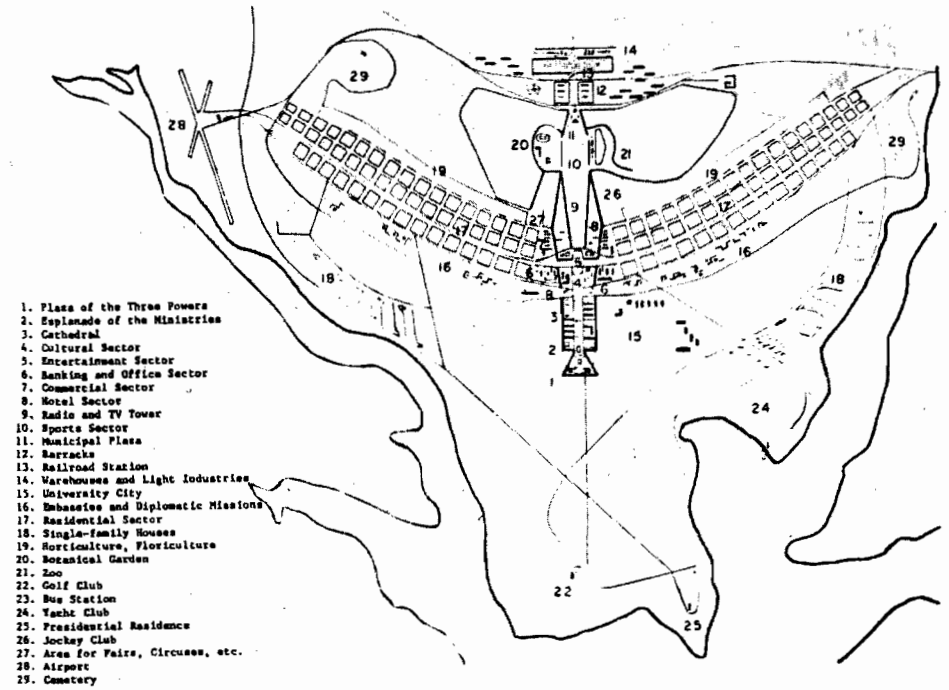


Fig. 2.1 Lúcio Costa, master plan of Brasília, 1957

Fig. 2.2 Lúcio Costa, perspective sketch of Brasília, 1957. AU–Arquitetura e Urbanismo.

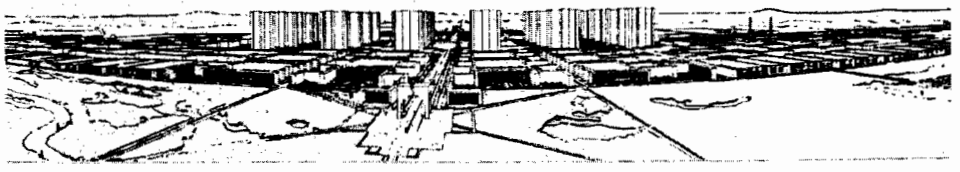


Fig. 2.3 Le Corbusier, A Contemporary City for Three Million Inhabitants, perspective sketch, 1922

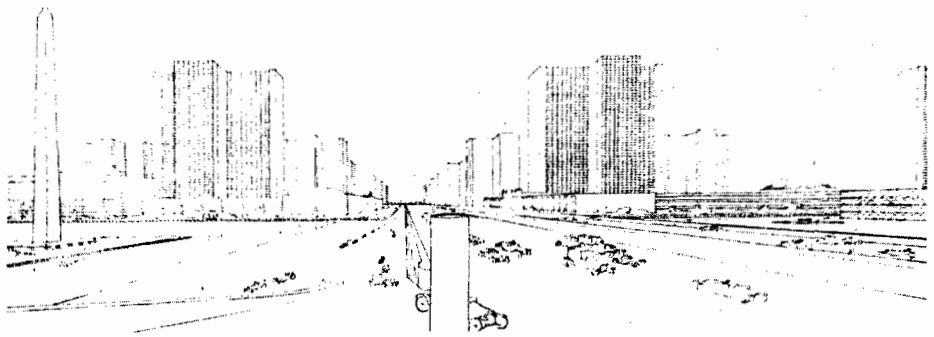


Fig. 2.4 Le Corbusier, A Contemporary City for Three Million Inhabitants, perspective, 1922 "The 'City' seen from the 'great arterial' freeway. To the left and right, the administration buildings. In the background, the museums and universities. One sees the ensemble of skyscrapers bathed in light and air." (Le Corbusier 1937: 36)

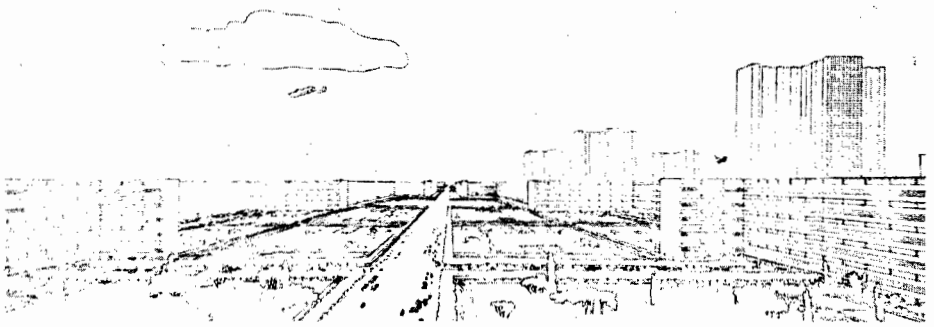


Fig. 2.5 Le Corbusier, A Contemporary City for Three Million Inhabitants, perspective, 1922 "A street running along an indented group of dwellings (6 double storeys). The indentations create a unique architectural impression, a far cry from the typical 'corridor streets.' Every window of each apartment (on both sides) opens out toward the park." (Le Corbusier 1937: 36)

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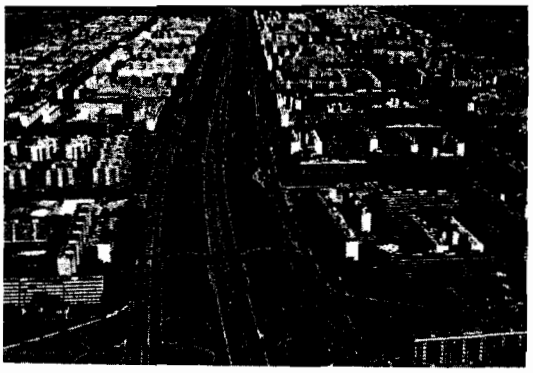

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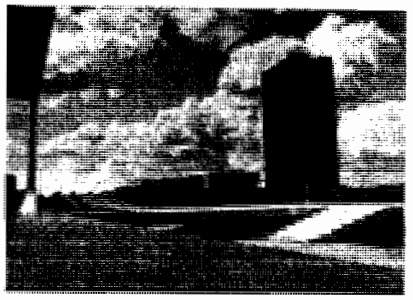

Fig. 2.6 Aerial view of the South Wing, Brasília, 1981

Fig. 2.7 Aerial view of the crossing of the Residential and Monumental axes, Bus Terminal and platform, and Entertainment sectors, Brasília, 1981

Fig. 2.8 Monumental Axis, view of the National Congress and the Esplanade of the Ministries from the Supreme Tribunal in the Plaza of the Three Powers, Brasília, 1980

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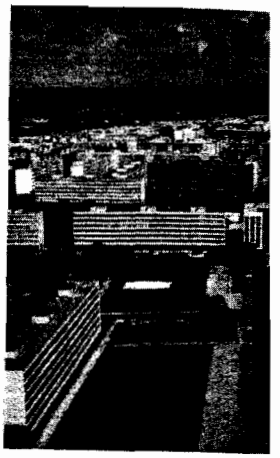

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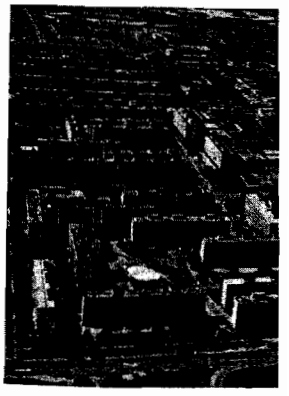

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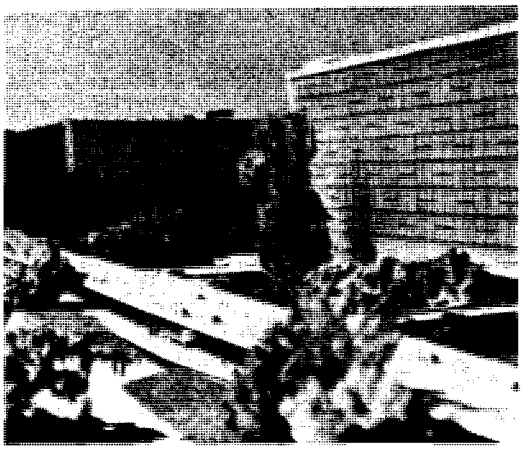

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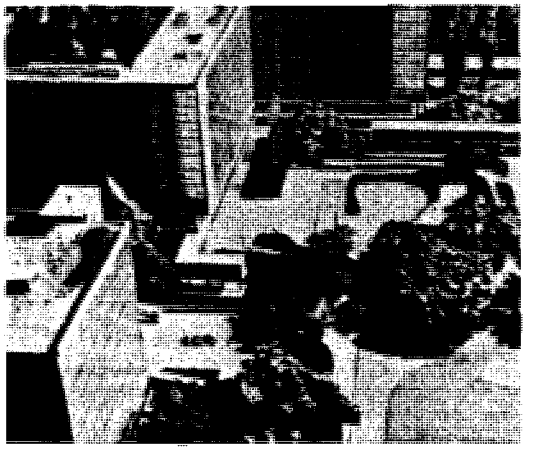

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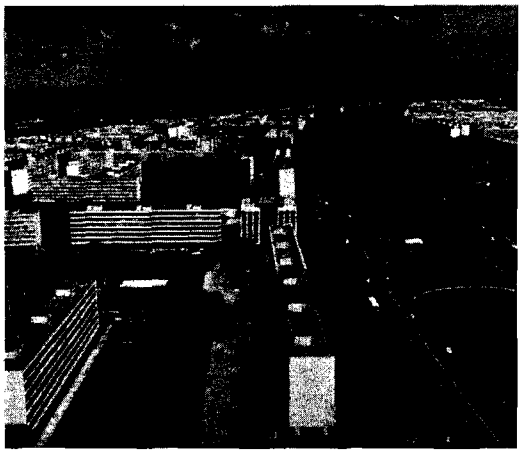

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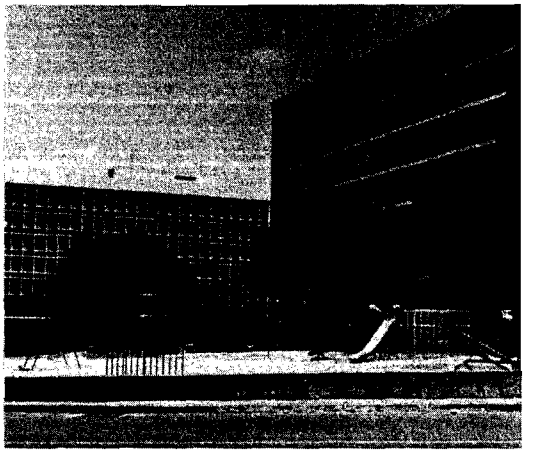

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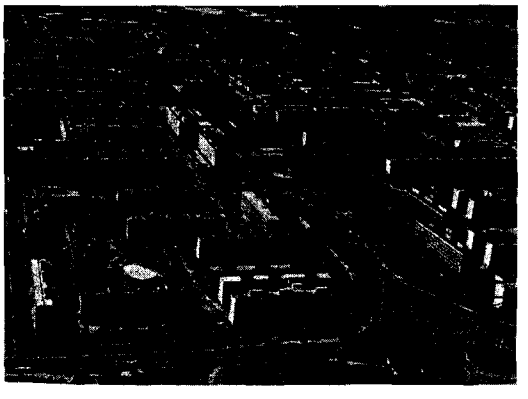

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Fig. 2.9 Le Corbusier, model of the Radiant City showing residential sector, 1930. "In zones of habitation such as this, streets have no excuse for existing. The city has become a green city. Buildings used by children are situated in parks. Adolescents and adults can play outdoor games right outside their dwellings. Automobiles circulate somewhere else—where they are useful for something." (Le Corbusier 1939: 33)

Fig. 2.10 Le Corbusier, model of the Radiant City showing residential sector, 1930

Fig. 2.11 View of the Residential sectors of the South Wing, Brasília, 1981

Fig. 2.12 View of housing blocks and playground of Superquadra 108 South, Brasília, 1980

Fig. 2.13 Aerial view of South Wing Superquadras 308, 307, 108, and 107, Brasília, 1981

in Brazil was decisive (see Bruand 1981: 82–93). Between 1930 and 1945, Costa and his students systematically analyzed Le Corbusier's work and accepted it as the foundation of modern architecture in Brazil. Costa (1962: 202) called it "the sacred book of architecture." Le Corbusier's projects were available to Brazilians not only through architectural publications but, most important, through the lectures that Le Corbusier gave in São Paulo and Rio de Janeiro in 1929 and again in 1936. His second visit galvanized Brazilian architects into producing one of the most celebrated works of contemporary architecture in the world: the Ministry of Education and Culture in Rio, constructed between 1936 and 1943 (figs. 2.14–2.16).

Le Corbusier worked directly with a Brazilian team of architects on this project, headed by Lúcio Costa and including Costa's students Niemeyer, Reidy, Moreira, Leão, and Vasconcellos, all later to become prominent architects. Le Corbusier contributed two original schemes for the ministry building on alternative sites. Although he claimed paternity of the final project as well in his later publications, the constructed ministry is today attributed to the Brazilian team because of its adaptations of his second design. Nevertheless, it is a pure Le Corbusian building. It applies with great success the defining features of his public architecture, such as the *brise-soleil* (sun screen); the building raised on columns to free the ground for gardens and circulation; the functional yet sculptural massing of volumes; the synthesis of sculpture, painting, and architecture; the glass façade; the modern construction techniques of column support and non-weight-bearing partitions; and the location of structures within the building lot rather than along its edges to create an open plaza. These are exactly the principles of architecture, along with others in the Le Corbusian grammar, that Costa and Niemeyer later used in Brasília.

Considering Brasília's pedigree, therefore, I use the terms modernist architecture and city planning to denote the tenets of CIAM and its associated aesthetic, the International Style. Most specifically, I refer to Le Corbusier's formulations of them in *The Athens Charter* (1941) and *The Radiant City* (1933), and in his architectural and planning projects, A Contemporary City for Three Million Inhabitants (1922) and The Radiant City (1930). I also include as part of these denotations related architectural groups and styles which historians distinguish from CIAM but which share many of its basic principles. I must explain this inclusive view because it is important both in understanding CIAM doctrine and in determining the extent to which I can generalize from the analysis of Brasília to other examples of modernist planning.[3]

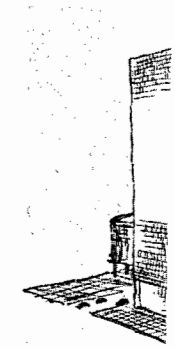

Fig. 2.14 Le Co
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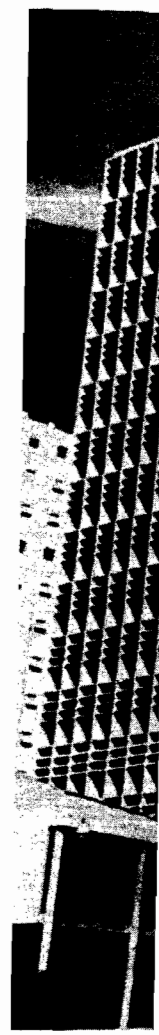
Janeiro, 1936

Fig. 2.16 North



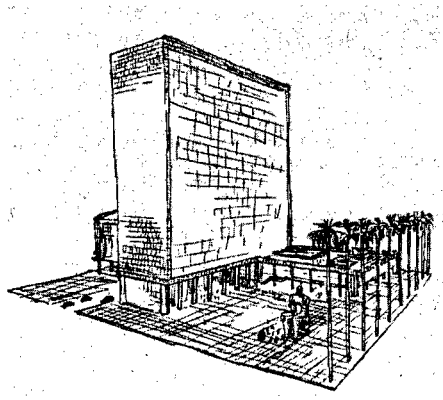


Fig. 2.14 Le Corbusier's second project for the Ministry of Education and Culture, Rio de Janeiro, 1936

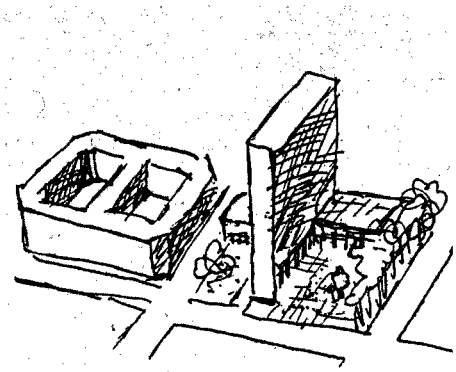
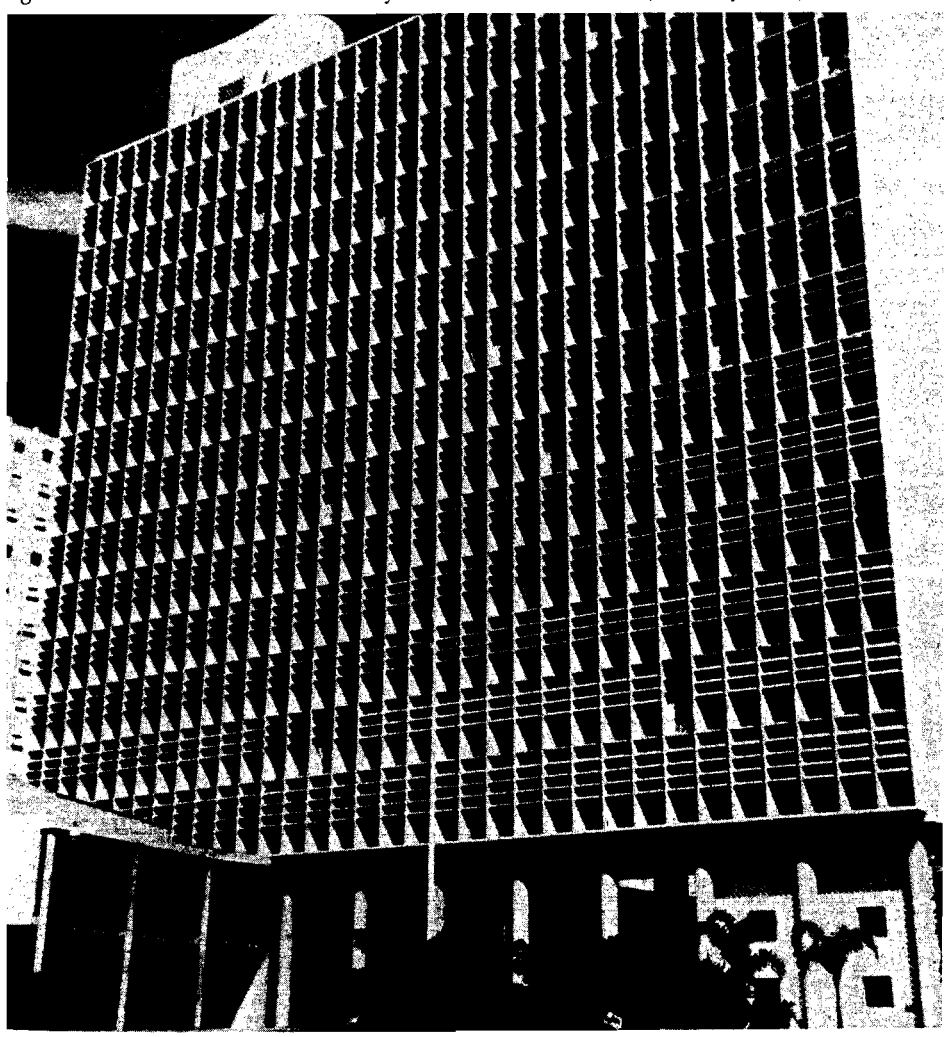


Fig. 2.15 Le Corbusier's second project for the Ministry of Education and Culture. Note the differences between the conventional and the modernist city-block.

Fig. 2.16 North elevation of the Ministry of Education and Culture, Rio de Janeiro, 1937–43



Soviet modernism presents one case in point of a distinct architectural and planning tradition related to CIAM. I am referring to the Soviet avant-garde movements, especially the faction of constructivism known as the Association of Contemporary Architects (OSA) as it developed in the 1920s and 1930s, and to the so-called modern functionalism of the post-Stalin era. As Cohen (1981: 117) states: "Indeed, if there is any country where the rules set down in *The Radiant City* and codified in *The Athens Charter* have the weight of law, it is certainly the U.S.S.R." Although the Russians did not participate in CIAM meetings or manifestos, they maintained working relations with its leaders. Both groups shared many of the same basic principles in developing a critique of existing urban conditions, a comprehensive theory of the new city, and specific architectural solutions for the new institutions of industrial society, namely, for mass housing, factories, administration buildings, parks, and traffic systems.

In addition, members of the two groups shared basic social and political positions, such as a radical critique of private property and money relations; the development of new building types, which the Russians called "social condensers"; the conception of the dwelling unit as part of public services; the liberation of women from domestic servitude; and, the corporate organization of apartment blocks and neighborhood units.[4] However, they did have important differences, especially over the issue of "urbanization versus deurbanization" (see Kopp 1970: appendix 6 and Cohen 1981: 102–8), and their mutual criticism tended to be caustic. Nevertheless, their relationship was essentially one of siblings, though perhaps not of comrades. Although Le Corbusier was not a Communist, he was often mistaken for one by his western critics.

I draw attention to this relationship because of the influence of Soviet architecture on Brazilian architects. This influence has been particularly significant on the architects of the Left, notably Niemeyer who is a lifelong member of the Brazilian Communist party. The influence of Soviet architecture is due in part to its sibling relationship with CIAM but most especially to its explicitly revolutionary objectives. Thus, both Soviet constructivism and post-Stalinist functionalism provide more than just examples of specific architectural solutions for the Brazilians. They also provide the model of what Niemeyer (1980b [1955]: 55) calls "social architecture" in "the solution of collective problems": "While in so many countries [the architect] attends almost exclusively to the solicitations of a minority of the dominant classes, there [in the Soviet Union], to the contrary, his work is

directed to the great projects of urban planning which have as their objective the common happiness and well-being."

Niemeyer (ibid., 53–54) argues that such a social architecture is impossible in Brazil. This is because Brazil lacks the "social base," "great collective plans," and "heavy industry" that are for him its necessary preconditions. Consequently, as a practicing architect, Niemeyer states that he has no choice but to serve either the elite classes or a "demagogic and opportunistic" government. As a politically radical modernist architect, Niemeyer claims that he is therefore forced to assume a basic contradiction in his practice between his necessarily "nonsocial" architecture and his political convictions—a dilemma to which we shall return. In this contradictory situation, Soviet architecture provides Niemeyer and others on the Left with a model of the desired alternative.

The broad consensus of issues between CIAM and constructivism raises an important point. Perhaps with the exception of total decontextualization, most of the features of the CIAM model city were developed by others earlier in this century and in the last. On the one hand, the various avant-garde movements contributed many elements. On the other, urbanists such as Haussmann (whom we consider later), reformist municipal governments, and French and British colonial administrations developed other features as the modern discipline of comprehensive spatial planning began to evolve with the need to manage the colonies abroad and the urban masses at home.[5] What distinguishes CIAM is that it expressly set out to build a common framework among such diverse contributors. In the words of Le Corbusier, its explicit purpose was to develop this consensus among groups of different architectural and political positions: "to express the maximum possible agreement between all the necessarily diverse tendencies represented by the very active members of such an international architectural conference: Catalan trade unionists, Muscovite collectivists, Italian fascists, and . . . sharp-eyed technical experts" (Le Corbusier 1967 [1933]: 188).[6]

Thus, CIAM was first and foremost an international congress whose members often linked mutually antagonistic social and political programs to the new architecture. As it was always divided into feuding groups, its manifestos can only be read as compromise statements.[7] These manifestos were based on resolutions (partially reprinted in Le Corbusier 1967: 187–89) that delegates from various national groups and avant-gardes prepared from extensive studies and then voted upon. For example, at the important 1933 meeting on The Functional City,

eighteen nations were represented by over one hundred delegates.[8] They analyzed detailed studies of thirty-three cities from all parts of the world except Africa and South America. Problems of urbanization in these regions were addressed in Le Corbusier's (1967 [1933]: 220–61) presentations of his own master plans for Rio de Janeiro (1929), São Paulo (1929), Buenos Aries (1929), and Montevideo (1929) in South America, and for Algiers (1931–33) and Domaine de Badjara (1932) in North Africa.

In spite of its political and architectural diversity, however, the congress of 1933 established a dehistoricizing precedent: when in 1941 Le Corbusier codified its results in *The Athens Charter*, he presented his version of the congress. Not surprisingly, he eliminated the tensions between its divergent components and, most significant, any relation between architecture and political affiliation. What the real differences between communists, fascists, and technocrats might mean for the modern city proposed were covered over in the effort to present Le Corbusier's version as the one of consensus.[9] Thus, in considering the international consensus CIAM achieved on a model city, we must realize on the one hand that many of its features were developed by others in different contexts, and, on the other, that some of its most important manifestos are laundered of its own history.

The multiple decontextualizations of CIAM manifestos have several consequences for our analysis. They alert us to an approach to city planning which will reappear in the case of Brasília, both in its Master Plan (whose own myth-making we consider in the next chapter) and in its appeal to groups which in other ways are discordant: Brasília was planned by a Left-center liberal, designed by a Communist, constructed by a developmentalist regime, and consolidated by a bureaucratic-authoritarian dictatorship, each claiming an elective affinity with the city. Precisely because the CIAM model manages to unite such dissonant interests, its brand of modernism has come to dominate development projects worldwide. We shall have to consider the character and costs of the dehistoricizing consensus it achieves.

Moreover, we shall have to set the CIAM project within a historically broader architectural and social context than the one it claims for itself. This is a complex task, and I can only point to those major components that are directly significant for my study. For while it is important for historians to investigate the diversity of architectural movements related to CIAM, and the political contexts in which the science of city planning arose, I must as well grapple with the fact that CIAM's model city did come to dominate architectural and planning discourses about

the modern city. This is the model that generated Brasília, and therefore the one on which I must focus my analysis.

2.2 The Modernist Project

> Take an airplane. Fly over our 19th century cities, over those immense sites encrusted with row after row of houses without hearts, furrowed with their canyons of soulless streets. Look down and judge for yourself. I say that these things are the signs of a tragic denaturing of human labor. They are proof that men, subjugated by the titanic growth of the machine, have succumbed to the machinations of a world powered by money. (Le Corbusier 1967 [1933]: 341)

The CIAM city is conceived as a city of salvation. It is proposed as a plan for deliverance from the "tragic denaturing of human labor" produced in and by the metropolises of industrialized society. According to CIAM doctrine, it constitutes a solution to the urban and social crises attributed to the unbridled domination of private interests in the public realm of the city, in the accumulation of wealth, and in the development of industry.

All of the avant-garde movements associated with CIAM were engaged in solving the crisis industrial capitalism had created in metropolitan organization and society. All shared a similar analysis of the situation: having been organized for private profit, the forces of production unleashed in the Industrial Revolution had reduced European cities to chaos by the turn of the century and had shattered their social fabric. The radical solutions proposed by CIAM called for the assertion of collective action and collective rights over private interests both in ordering the city and in managing the forces of industrial development. They proclaimed a new machine era in which the potential benefits of the Industrial Revolution would be extended to all classes and in which the city would be as orderly as an industrial assemblage.

As these egalitarian and functional prescriptions for the metropolitan crisis constituted a political critique of the development of capitalism in Europe, they therefore politicized architecture. As a result, most of the avant-garde movements adopted political parties as models of action. Nevertheless, as a critique calling for radical change, it was one amenable to different political affiliations among the "Catalan trade unionists, Muscovite collectivists, Italian fascists," and technocrats. Consequently, the avant-garde movements in architecture were distributed over the available political spectrum. Most affiliated

with a radical Left—constructivism and cubo-futurism in Russia, utopianism and expressionism in Central Europe, the Bauhaus and Der Ring in Germany. It was the Ring organization of Gropius, May, Taut, Wagner, and others which represented the radical architects of Germany in CIAM (see Lane 1968: 127). Yet several members of this group and of de Stijl in Holland also associated with social-democratic coalitions of the Left center to build experimental residential quarters for the working classes in Amsterdam, Frankfurt, Hamburg, and Berlin (see Lane 1968: 87–124 and Tafuri 1976: 109–24). Still others of the Movimento Italiano per L'Architettura Razionale (MIAR) embraced Italian fascism before Mussolini himself turned away from modernism and adopted monumental classicism as the architectural style of his regime (see Benevolo 1977: 561–76).

It should be understood, however, that these political affiliations were often mercurial and ambiguous as radical architects appeared at the door of whichever authority, on the Left or Right, seemed capable of implementing total planning. "France needs a Father," Le Corbusier proclaimed. "It doesn't matter who. It could be one man, two men, any number" (cited in Fishman 1977: 265). Thus, hoping to find an omnipotent patron, he wrote on the title page of his major publication, *The Radiant City:* "This work is dedicated to AUTHORITY." The political history of the avant-garde movements in architecture has yet to be written.[10] For our purposes, what is significant is that all of these architectural avant-gardes shared certain fundamental premises in their evaluation of the crises of metropolitan society. In *Architecture and Utopia: Design and Capitalist Development*, Tafuri (1976: 50–124) establishes the unity of these premises in a persuasive, if dense, argument. One summary passage is worth quoting to reinforce this point:

> Free the experience of shock [i.e., the crush of the big city] from any automatism [i.e., passivity, alienation, anomie]; found, on the basis of that experience, visual codes and codes of action transformed by the already consolidated characteristics of the capitalist metropolis (rapidity of transformation, organization and simultaneousness of communications, accelerated tempo of use, eclecticism); reduce the artistic experience to a pure object. . .; involve the public, unified in an avowed interclass and therefore anti-bourgeois ideology: these are the tasks that all together were assumed by the avant-garde of the twentieth century. . . . And I must repeat, all together, and without any distinction between Constructivism and the art of protest.

From 1922 on, the various avant-gardes tried with apparent urgency to unify their positions on modern art and the metrop-

olis (Tafuri 1976: 95 notes 61, 95). With an internationalism that they hoped would have political ramifications, they managed to synthesize such theories as dadaist anarchy, constructivist decomposition, and de Stijl order into a united front through joint manifestos, publications, exhibitions, and conventions.

These efforts eventually produced a convergence of propositions for a new kind of city. Principally through the writings of Le Corbusier and his followers, these in turn were synthesized (and dehistoricized, as I suggested) into the basic working model of CIAM. Once consolidated in this form, it became the almost universally recognized image of the planned modern city. In what follows, I shall briefly describe the major premises of this model. Although I set them within the historical context of nineteenth-century urban growth and of the development of city planning as a means of population management and political control, my principal concern is with the CIAM view of these developments and with its synthesis of planning propositions. I shall focus especially on its (1) anticapitalist and egalitarian basis, (2) machine metaphor and totalizing rationality, (3) redefinition of the social functions of urban organization, (4) development of building typologies and planning conventions as instruments of social change, (5) decontextualization and environmental determinism, (6) reliance on state authority to achieve total planning, (7) techniques of shock, and (8) conflation of art, politics, and daily life.

CIAM doctrine attributes the metropolitan crisis to the interactions of two factors. First, it points to the failure to plan cities according to the requirements and consequences of the machine and industrial production. Second, it attacks the institution of private property as the primary impediment to comprehensive planning. In analyzing the interaction of these two factors, CIAM propounded an argument based on the historical development of cities under capitalism to justify its planning proposals. Considering the way these proposals deny historical context in their own application, this is indeed a contradictory foundation.

CIAM argued that the cities of the Industrial Revolution were not planned as either the production units or the administrative centers that the development of industry required. They were organized neither by the needs of the production process nor by an efficient, taylorized cycle of industrial production, distribution, and consumption. If they have any organization at all according to CIAM ideology (Le Corbusier 1957: arts. 72–73), it is only that of the "ruthless rule" of private property. As a consequence, CIAM argued that the unplanned urban centers could not effectively manage the massive influx of migrants drawn to industrial employment and related services. Nor could

they accommodate their own natural growth. Over the course of the nineteenth century, the population of major cities in Europe grew at an extraordinary rate (see A. Weber 1963). Both London and Paris quintupled in size. London swelled from 860,000 to 4.2 million and Paris from 550,000 to 2.5 million inhabitants. Berlin increased eightfold, from 200,000 to over 1.6 million. Manchester, Frankfurt, Hamburg, Lyons, Milan, and many other cities posted similar gains at the close of the century.

To describe the effects of this phenomenal expansion on the city, Le Corbusier developed a set of disease metaphors in an etiology of urban chaos. The monstrous growth of worker tenements created "cesspools" of tuberculosis and cholera. As the urban periphery of slums expanded "contagiously," the city spread into the countryside "like a disease." The sprawling metropolis lost the coherent physical structure of a "healthy organism" it once manifested. Instead, it showed all the symptoms of being in the final phase of a fatal malady: its circulation clogged, its respiration polluted, its tissues decaying in their own noxious wastes. As in a coroner's report, *The Athens Charter* concludes:

> All kinds of unpleasantness have come upon people who were unable to measure accurately the extent of technological transformations and their repercussions on public and private life. Lack of urban planning is the cause of the anarchy that reigns in the organization of cities and the equipment of industries. Because people have failed to understand the rules [of urban development], the countryside has been emptied, cities have been filled beyond all reason, concentrations of industry have taken place haphazardly, workers' dwellings have become hovels. Nothing was done to safeguard man. The result is catastrophic and it is almost identical in every country. It is the bitter fruit of a hundred years of the undirected development of the machine. (Le Corbusier 1957: art. 94)

The Athens Charter attributes this undirected development to the dominance of private interests in collective affairs. Private interests control not only the means of production (and thereby the development of industry) but, most important, the city's resources, principally land. In CIAM's view (Le Corbusier 1957: art. 72), the second and determining cause of the urban crisis is the control the interests of private property exercise over the development of the city.

CIAM argued that under capitalism, private ownership dominates land use and thereby determines the structure of the city. Its arguments are based on a consideration of the growth of nineteenth-century cities, and in this regard they seem justified.

Even in those cities that had numerous public squares and parks, the influence of private interests on public resources is evident when one considers how the public was defined in relation to the private—a relation we shall analyze in subsequent chapters. The dominant public spaces in these cities were streets and squares, defined both architecturally and legally by the buildings around them. Any attempt to widen a street or reorganize a square to accommodate heavier traffic, for example, had to confront the rights of adjacent property owners whose land would be affected. Furthermore, real estate speculation for private profit determined the land value of these lots and this in turn controlled building construction. Thus, the interests of private property in housing shaped the physical structure of these cities: they not only controlled those holdings that were in private hands but they restricted development in the public areas of the city as well.

It is at this point that the conflict between private interests and the public good engages CIAM. Without some form of land expropriation available to planners, CIAM argues that private ownership easily blocks attempts at urban reform, not to mention comprehensive planning for development. Therefore, *The Athens Charter* (ibid., art. 94) proposes that "the soil—the territory of the nation—ought to be available at any moment and at its fair value, estimated before plans have been drawn up. The ground should be open to mobilization when it is a matter of general interest." In an earlier rendition of this proposal, Le Corbusier (1967 [1933]: 189) characteristically exposes the radical implications of the more guarded version presented in *The Athens Charter:*

> Mobilization of private property, whether built on or not, [is] a fundamental condition of any planned development of Cities. . . . Destruction of the legal system! Modification of age-old truths! In order to provide liberty for the individual and all the benefits of collective action . . . contemporary society must have the entire land surface of the country at its disposal. "To have at its disposal" does not mean doing away with private property, or stealing, or depredation. It means improving the assets represented by our land for the benefit of mankind. Let the lawyers find a way!

As this statement makes clear, CIAM never espoused the abolition of private property, only its redefinition. While this redefinition is never fully specified (a lawyer's task), its outline is nevertheless apparent. It entails redefining the concept of ownership in land. Although residents in the CIAM city would have the right to buy and sell land, the state would hold the

ultimate rights over land alienation. This right would be exercised by the planning authorities of local government in accordance with a national policy of land development. Land would be "redistributed" (Le Corbusier's term) from the private domain to the public in cases of conflict between public and private interests. Expropriated owners would receive payment at a value determined by the state and not real estate speculation.

Thus, in contrast to the capitalist view of land as disposable real estate, the CIAM proposals consider both urban and rural land as, ultimately, inalienable state patrimony. This redefinition does not abolish private property but it does remove the right of disposal in certain circumstances from the bundle of rights associated with land ownership. The other rights of ownership remain. CIAM doctrine also stresses that ownership is a right ultimately legitimated by the state as part of its collective organization. On the basis of this legitimation, CIAM proposals justify the right of planners to intervene in matters of land tenure when "the benefit of mankind" is at issue.

Thus, the mobilization of land is at the basis of several key objectives in CIAM planning. First, CIAM planners believed that it would abolish the ultimate power of private interests to block planning initiatives (Le Corbusier 1957: art. 73). Without property restrictions, planners would be able to assume, as the foundation of their plans, a position of unchallenged authority over the destiny of the city. CIAM planners argued that as a result, their urban plans would become blueprints for development, based on this presumed ability to control the future through action guided by rationality and centralized authority. Second, CIAM planners wanted to mobilize the land in order to establish a regional development policy, incorporating city and country into their comprehensive plans (ibid., art. 77). Third, they insisted that mobilization would curtail the pernicious effects of real estate speculation in the city (ibid., art. 72).

By controlling speculation, CIAM planners expected to be able to distribute urban resources on the basis of factors other than wealth. The basis of this distribution would in effect be the master plan of the city itself, which would allocate the advantages of collective organization—such as housing, recreation, education, and health facilities—to all classes of residents according to objective and rational criteria. As a result of this egalitarian distribution, CIAM argued that the modernist city would achieve an ultimate goal: it would be a city neither socially nor spatially stratified into money classes. It is therefore evident why mobilization was a key proposal of CIAM: not only would it supposedly establish the conditions for a classless city, but the planner's master plan would be the absolute basis of order in that city, and the planner its arbiter.

Land expropriation for public use was not, however, a new issue. It had its origins in the very beginning of urban planning legislation in England and France, and it is important to see how the CIAM proposals for urban reorganization both derive and differ from it. The phenomenal growth of unsanitary housing in both countries during the nineteenth century led to numerous legislative attempts beginning in the 1830s to regulate the private ownership and construction of tenements.[11] Social reformers and sanitation specialists pioneered these bills, seeking to make ownership in real estate accountable to minimum standards of health and welfare set by the state. Inevitably, these entailed a restriction of the rights of property ownership through government intervention in one form or another, and thereby urban planning—linked to the emerging social sciences—played an important role in the consolidation of centralized administrative and political powers in these European states.

Until the late 1840s, liberal bourgeois opposition to state intervention and, from a different perspective, defenders of the rights of citizens combined to defeat these proposals. But successive cholera epidemics in Paris and London during the 1840s necessitated immediate action on the governmental regulation of unsanitary housing. In England, the Public Health Act of 1848 was the first in a series of such regulations, culminating in the Housing of the Working Classes Act of 1890. These laws empowered a variety of government commissions to hold landlords responsible for the sanitary conditions of their dwellings. They established the right of health inspectors and planners to levy fines, taxes, and property improvement rates, to have free access to property to inspect and condemn, and finally even to requisition land. In France, the laws of 1841 on public works and of 1850 on slum housing went a step further. They gave the Municipal Council, through the courts, the necessary authority for the compulsory acquisition of land.

Devised for public works and slum clearances, these French laws were amended in 1852 to give the executive institutions of government the power to expropriate land without recourse to the courts. It was this ensemble of legislation, especially the acquisition of land by executive order, that enabled Baron Haussmann to realize his profound transformation of Paris in the following two decades. In the second part of the nineteenth century, laws similar to these were enacted in Belgium, Austria, Spain, Italy, and England, giving the state the power to carry out large-scale planning operations. From these executive powers came the spate of enormous public building projects that transformed European capitals. These involved massive demolition and construction in Paris (1853–69), Brussels (1867–71),

Barcelona (from 1859), and Florence (1864–77); the building of the Ringstrasse in Vienna (from 1857); and the installation of a main drainage system and foundations for the underground rail in London (from 1848).

It cannot be doubted that this Haussmannization of European capitals greatly influenced CIAM planning. Le Corbusier (1967: 209–11) admired the baron for bringing a measure of geometric order to Paris and for using a scheme of broad avenues to unite isolated areas of the city—two paramount principles in CIAM doctrine. Haussmann himself provided a model for the CIAM planner: technocrat, engineer, "surgeon"; incorruptible and autocratic. Furthermore, Haussmann established a rationale for large-scale planning that CIAM adopted. He justified his surgical incisions through workers' quarters as measures necessary to endow urban centers with "space, air, light, verdure and flowers, in a word, with all that dispenses health" (Haussmann 1890: quoted in Vidler 1978, p. 91). This justification is nearly identical, word for word, with CIAM's own explanation for its even more comprehensive "greening of the city" (Le Corbusier 1957: art. 12). Just as Haussmann had done, CIAM (ibid., arts. 8–17, 23–40) adopted the technical, technocratic, and moral justifications of public works legislation for its proposed transformations of the nineteenth-century city. Yet, both Haussmann's and CIAM's discourses on sanitation, housing, poverty, state intervention, and so on, may be seen to derive from the same need to grapple with the explosion of the urban populations of Europe during the eighteenth and nineteenth centuries. For this phenomenon had led to the understanding not only that the management of population was indispensible to the interests of capitalism but also that this management required the articulation of spatial planning, social science knowledge, and political power. If Haussmann and his contemporaries had not quite accomplished this articulation by the 1870s, CIAM inherited it by the 1920s as the already formed discipline of urbanism.

In this sense, CIAM's model city carries on basic aims of late nineteenth- and early twentieth-century public works legislation in developing a comprehensive program for urban organization, and in presenting it as an indispensible instrument of the good government of society. Nonetheless, CIAM planning goes beyond these intents in several significant ways. Under nineteenth-century legislation, building sites acquired and improved at public expense did not remain public property after improvement. Rather, they were restored to their original owners (Benevolo 1967: 135). As Haussmann himself protested, these improvements resulted in enormous capital gains for the original landlords at the expense of the city. In CIAM planning,

expropriated sites would be purchased *before* improvements and would remain public property after redevelopment (Le Corbusier 1957: art. 94). Thus, as the government redeveloped the city, more and more of it would become public and less private. Eventually, a new kind of entirely public city would emerge as the end-product of CIAM development planning. In this situation (as in fact initially occurred in Brasília), citizens' rights to hold housing property need not be abolished because they simply become irrelevant.

In the second place, the Haussmannization or evisceration of the central quarters of numerous European cities did not solve the problem of mass housing or provide for the kind of egalitarian distribution of urban resources CIAM proposed. In fact, it had just the opposite intent and effect: that of securing the city for the rich by marginalizing the poor. These large-scale planning projects "solved" the housing problem of the working classes by exiling them to the periphery. The broad avenues cut through working-class neighborhoods were surgical incisions designed to remove "the dangerous classes" from the hub of the city. Engels (1872: 74–75) did not fail to recognize the true class intentions of Haussmann planning: "Breaking long, straight and broad streets through the closely built workers' quarters . . . turn the city into a pure luxury city. . . . The scandalous alleys and lanes disappear to the accompaniment of lavish self-praise from the bourgeoisie . . . but they appear again immediately somewhere else." Furthermore, while these avenues did bring a measure of fresh air into the city, their broad dimensions facilitated military maneuvers against the barricades of working-class rebellions—an urban planning lesson learned in the wake of successive Parisian revolts.

It is true that Le Corbusier's 1925 Plan Voisin for Paris (based on his first ideal city of 1922) proposes a Haussmannization on a scale not even Haussmann imagined. In this plan, the managerial elite of a new Paris occupy the center while the working classes have been removed to outlying satellite suburbs. Just as Engels had attacked Haussmannization as an instrument of class oppression, so French Communists condemned the Plan Voisin. They argued that it presupposed a centralized authoritarian government run by an elite corps of capitalists and managers and that its center-satellite organization reproduced stratified class distinctions. Between 1925 and 1930, however, Le Corbusier underwent a political *crise de conscience* (cf. Fishman 1982: 205–34). He became disillusioned with the kind of bourgeois rule such projects presumed. Instead, he proposed the Radiant City (1930–35), the prototype of *The Athens Charter,* which abolishes the satellite system and incorporates all classes

within the city. In theory, it distributes its collective benefits to all residents. Thus, Le Corbusier (1967 [1933]: 13) could argue that the objective of urban planning is a city without classes: "I had created the prototype of a *classless city*, a city of men busy with work and leisure in surroundings that made these possible." We should remember that this radiant and classless model is the one adopted for the Master Plan of Brasília, which specifies that all classes of the federal bureaucracy must live within its residential units.

Thus, CIAM planning proposed to solve the urban crisis of capitalism by adopting the technical and rational arguments of public health legislation in the context of a comprehensive strategy of public works and good government. As we have seen thus far, it expands this strategy in two ways. First, it considers the entire planned city as a state-sponsored public domain. Second, it proposes to distribute to all residents the benefits of this collective organization on the basis of a master plan for development.

In yet a third way, CIAM reconceived the strategy of public works. The discourse of urban reform in the eighteenth and nineteenth centuries was often presented in terms of a metaphor of disease in an analogy between cities and the human body: the city was a diseased organism that required radical surgery in the form of planning operations to cut open its afflicted parts, to make incisions with broad avenues through congested quarters, to rehabilitate the city's lungs with new parks, and so forth (see Vidler 1978: 38–42, 68–96 on these medical analogies). As we have seen, Le Corbusier also adopted this rhetorical device of describing cities as malignant growths. However, CIAM based its planning prescriptions not so much on a model of the organism as on a model of the machine.

In CIAM's analysis, the solution to the crisis of the machine is to be found in the machine itself. If the machine had destroyed the cities of the first machine age (1730–1930), so called, it would be the salvation of the cities of the second. Nearly all of the avant-garde movements viewed the machine as a potential source of liberation: "The machine, that vast modern event, will be seen [in the Radiant City] for what it really is, a servant and not a ruler, a worker and not a tyrant, a source of unity and not of conflict, of construction and not of destruction" (Le Corbusier 1967: 176). In this prognostication, the machine would liberate society from the drudgery of manual labor, freeing women especially from domestic slavery and giving both men and women a new measure of humanity. Moreover, it would destroy national and class boundaries. It would create international and interclass communication; it would equalize. For society to

realize the benefits of this vehicle of social progress, cities would have to be planned in harmony with its development and use.[12]

The simplest way to do this, CIAM proposed, would be to treat the new city itself as a machine, that is, to plan it as an engineer plans an industrial process by conceiving of the city as an industrial product. This new city would be organized not as a metaphor of the machine but quite literally as a machine, a "machine for living in" (as Le Corbusier once described the house). In this organization, the city would be broken down into its essential functions. These would be taylorized, standardized, rationalized, and assembled as a totality. Thus, the totalizing scope of modernist planning derives from its conception of the city as a machine. For a machine is never partially designed or partially constructed; only its completeness guarantees its functional, working order.[13]

In these machine-cities, the architect no longer designs individual objects. Instead, the architect organizes these objects into processes—into functions, interrelations, and communications—and plans their future development. Only through this kind of total planning in which the city is ordered as an industrial assemblage, could its complexity be controlled and could the potential benefits of the machine be extended to all classes of residents. Thus, unlike premodernist planning, the CIAM city took as its organizational model the very event which had destroyed preindustrial cities: the machine itself.

The purely technical arguments that the modernists developed to justify their planning proposals thus derive in part from public health and administrative concerns and in part from the model of the machine in industrial production. However, this constellation of technical arguments is linked to a comprehensive reassessment of the functions of the city. The model of the machine entails not simply breaking the city down into its essential functions of housing, work, recreation, and traffic. More significantly, it demands reorganizing and at the same time reconceptualizing these functions. It proposes to relate them through a master plan which will ensure that each one performs its assigned tasks in harmony with the others, as the gears of a machine do. The modernist model, however, does much more than just provide a blueprint of functional order. It cannot simply accept the identity of these functions as they had developed in the chaos of nineteenth-century cities.

The new architecture therefore set out to redefine systematically the social basis of each function. It does not simply redesign apartment buildings; it proposes to restructure domestic organization and the family as an economic unit.[14] In completely separating pedestrian and vehicle, it not only abolishes streets,

it also eliminates the type of urban crowd and public activity that streets support. In planning a city in a park of playing fields and gardens, it does not simply "green" the city; more significantly, it proposes a new focus on sports for the displaced public activity of streets. The design of modern factories, commercial facilities, and superhighways reconceives the relationship between residence, work, and commerce, and between market and marketplace. Together, these redefinitions constitute a program of social change in which the institutional structures that had previously characterized each function are radically transformed.

Corresponding to these redefinitions, architects developed a set of equally revolutionary building types and urban structures. They were motivated by the central idea in architectural modernism that the creation of new *forms* of social experience would transform society, and they viewed architectural innovation as precisely the opportunity to do this. The new units of habitation, buildings sited in the middle of continuous open spaces, transparent glass façades, gardens on rooftops, avenues without intersections, and the free plan, are all, in this modernist doctrine, means to create new social practices and thus instruments of social progress. They are designed to transform society by forging new forms of collective associations and personal habits, and by precluding those considered undesirable.[15]

One of the clearest statements on the new architectural typology as a medium of social transformation is found in the OSA constructivist manifesto of 1928:

> We are opposed to such prerevolutionary building types as the speculative apartment house, the private residence, the "noblemen's club," etc., all products of prerevolutionary social, technical, and economic circumstances, but still serving as a model for buildings now being erected in the U.S.S.R.: [instead we propose] new types of communal housing, new types of clubs, palaces of labor, new factories, etc., which in fact should be the conductors and condensers of socialist culture. (Kopp 1970: 94)

Architecture as the conductor and condenser of a new way of life—this is a metaphor drawn from the model of the machine. These social condensers would transform human nature as electrical condensers transform the nature of current, turning the bourgeois individualist and the denatured laborer of capitalist society into fully developed members of the socialist collective. Modernist architecture therefore is not only or even most fundamentally an argument for a new technology in building construction. Its new building typologies and planning conventions were developed as instruments of social change on

the basis of this central premise: that they would function as subversive set pieces within existing cities to regenerate the whole surrounding fabric of denatured social life. "The introduction of new building types into the old fabric of the city affects the whole by transforming it" (Lissitzky 1970 [1929]: 52).

In this theory of architectural condensation and radiation, the assemblage of condensers produces a *total* environment for a future society. It is a doctrine characterized by a type of environmental determinism in which there can be no half measures or partial solutions to the crisis of industrial or industrializing society. One of the most distinctive and original features of modernist architecture is that it refuses any accommodation whatsoever to existing urban and social conditions. The break with the past must be absolute. This total decontextualization is evident in *any* modernist building project. If we take, for example, Le Corbusier's 1925 Plan Voisin for the reconstruction of central Paris or Hilberseimer's 1927 project for central Berlin, we see that in both an enormous area of the city has simply been leveled to make room for the insertion of a new and complete environment (figs. 2.17 and 2.18). The contrast between the new city and the old is one of total antagonism—a turning inside out which we shall analyze in chapter 4.

With the few exceptions of cities actually built de novo, however, the modernists rarely had the opportunity to carry out their projects on such an apocalyptic scale. Most of their built work exists in the form of single buildings. Nevertheless, it is clear that each of these is but a fragment of a total vision, of an unrealized totality. Each is to function as an enclave of subversive social practices which will eventually transform the whole. This principle of total decontextualization is therefore fundamental to the modernists' project of creating social condensers because the very totality of these new environments permits no escape from what is essentially a forced conduction to radical changes in social relations.

How is this conduction possible? In large measure, it relies on the techniques of shock. The elements or conventions that compose the new architectural order constitute what I have already referred to as a strategy of defamiliarization. This strategy was central to all of the avant-garde movements in the arts during the formative period of modern architecture. It is essentially a concept of perceptual renewal and change (cf. Jameson 1972: 50–91 and Bürger 1984: 80–81). The Russian formalist, Viktor Shklovsky (1965), defined defamiliarization in art as the technique of making objects strange (*ostranenie*) so as to renew perceptions of them. It is a means of breaking through the deadening and mechanical habits of daily routines in order

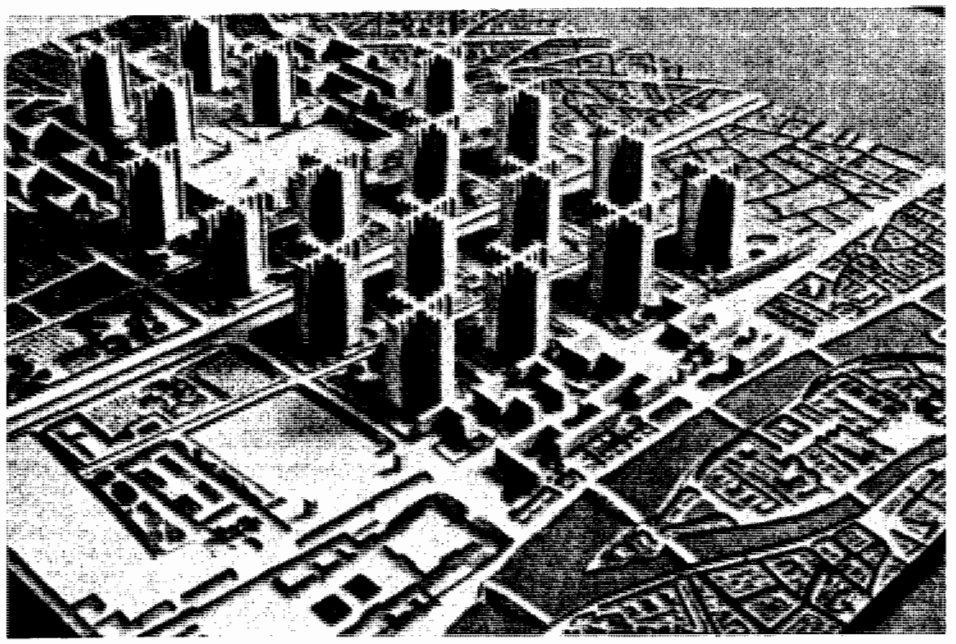


Fig. 2.17 Le Corbusier, Plan Voisin for Paris, 1925

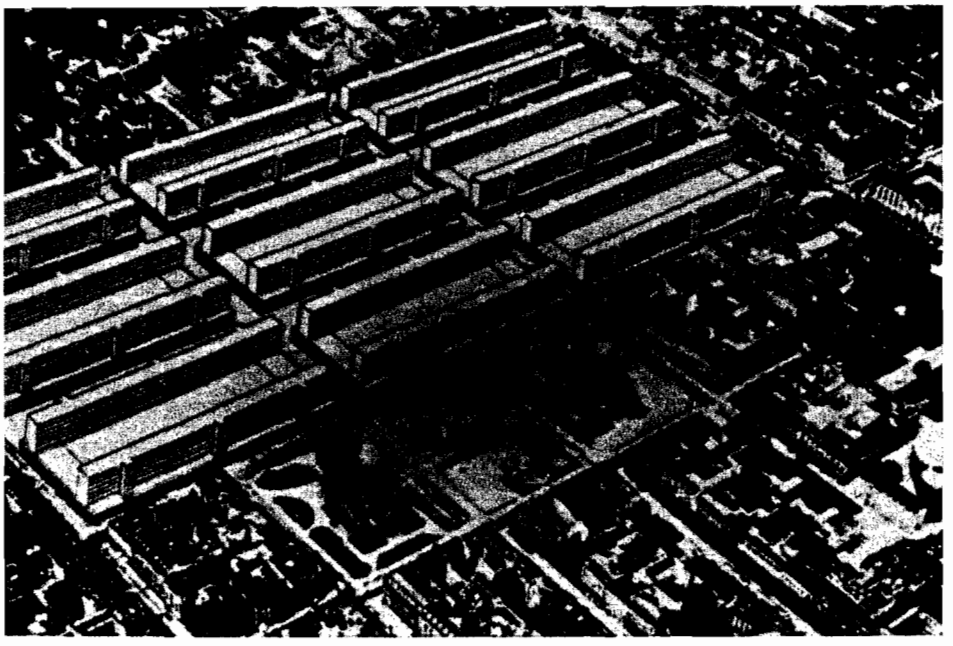


Fig. 2.18 Ludwig Hilberseimer, project for central Berlin, 1927. From Colin Rowe and Fred Koetter, *Collage City* (Cambridge: MIT Press, 1978). Copyright 1978 by The MIT Press.

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to desacralize unquestioned values, to restore conscious experience, and to generate a critical reappraisal of the objects and institutions around us. Furthermore, Shklovsky characterized modern art as precisely that which deliberately draws attention to its own techniques of defamiliarization. As he put it, modern art forms deliberately "bare" or reveal their own devices for making the world strange so as to call attention to the processes of constructing and changing meaning. Brecht (ibid., 58) developed a similar notion in his theory of the "estrangement effect" (*Verfremdung*). The purpose of this estrangement and of baring its devices in art is to show us that society is not a natural given but itself the result of historical change and therefore changeable.[16]

The techniques of shock which the avant-gardes developed to raise critical consciousness include inversion, arbitrary juxtaposition, montage, decontextualization, decomposition, and deconstruction. The theories of shock abound: dadaist anarchy, surrealist objective chance (*le hasard objectif*), de Stijl decomposition, constructivist deconstruction, and Le Corbusier's objects evoking poetic reaction (*objets à réaction poétique*). As modern architecture is a synthesis of several art forms (e.g., sculpture, painting, and graphics), it drew from a large repertoire of such theories and techniques of shock—a combination brutally effective on the inhabitants of avant-garde projects; viz., *brasilite*.

The modernist strategy of defamiliarization intends to make the city strange. It consists in the attempt to impose a new urban order through a set of transformations that negate previous expectations about urban life. The modernists viewed the capitalist city as both socially and architecturally organized by discriminations between the public and the private, and by distributions of wealth, which had to be totally changed. In response, they developed proposals to produce both a new type of city and a new type of urban public for it in which such discriminations would disappear. Their new urban order was based on two sorts of transformations, the one institutional and the other architectural. The first consists in what we might call a displacement of social institutions traditionally centered in the private domain of social organization—such as property, residence, domestic organization, child and health care, and education—to a new state-sponsored public sphere of collective services, residences, associations, social clubs, and administrative councils.[17] This displacement redefines the institutional basis of the four functions of urban order by maximizing the role of the state's corporate domain and minimizing that of the familial domain in social organization. Its objective is to restructure the institutional relationships between the public and the

private domains of social life so that they are both entirely regulated by a comprehensive, state-sponsored master plan. This project amounts to a proposal for transforming the social structure of capitalist society itself. For as the master plan eliminates private property as an institutional basis of both domestic organization and public order, the old distinctions between the public and the private disappear.

At the same time, these distinctions become architecturally illegible. This effacement constitutes the second strategy for creating a new urban public. It consists in transforming the nature of the capitalist city through building types, urban forms, and architectural conventions that negate its systems of representation. For example, the curtain wall of glass is such a convention of defamiliarization. An all-glass façade exposes the private domain, previously concealed behind walls, to public scrutiny. Glass transparency dissolves an opposition between private and public and between inside and outside, which had in the past been fundamental to the concept of façade in the representation of social order. In the modernist city, such conventions would impose a totally planned environment, and therefore a totality of perceptions, in which the targeted social distinctions would no longer be discerned simply because they would no longer be the focus of architectural design. Thus, by rendering them architecturally illegible, modernism sought to render them socially irrelevant.

In this double negative, CIAM modernism links architectural innovation, perceptual change, and social transformation in a utopian mode. Although it considers that innovation develops through a search for architectural forms that "condense" new types of social experience, it views the relationship between architecture and society as transitive: change the architecture and society will be forced to follow the program of social change that the architecture embodies. In this transitive prescription for the metropolitan crisis, CIAM doctrine becomes decidedly utopian. The utopian factor in the model of the city-as-machine rings clearly in the words of the grand master, Le Corbusier (1967: 143): "On the day when contemporary society, at present so sick, has become properly aware that only architecture and city planning can provide the exact prescription for its ills, then the time will have come for the great machine to be put in motion." The great machine of modern architecture is utopian because it proposes to regenerate the present by means of an imagined future, which is posited in built form as the beachhead of a new society within the existing order of things. As the means to this new society is built form, modernism argues that radical social change can and indeed must occur without social

revolution. This utopian sidestep is precisely the challenge and the appeal of the final sentences of Le Corbusier's 1923 manifesto: "Architecture or Revolution. Revolution can be avoided" (Le Corbusier 1974: 269).

In the following chapters, we shall analyze the techniques and consequences of making the city strange in Brasília. There, the Master Plan achieves its total and totalizing order precisely by translating its objectives of institutional displacement into conventions of architectural defamiliarization. The investigation of the CIAM model city has drawn our attention to a number of issues in evaluating this order. One concerns history and context. CIAM doctrine doubly undercuts the importance of context in the making of history. On the one hand, in achieving consensus on a model city which can be built anywhere, its manifestos eliminate the tensions, specificities, and diversities of their own production. On the other, in its critique of the development of cities under capitalism, it studies history only to place it in the service of its own project: it constructs a historical narrative in which its own manifestos, prescriptions, and solutions are the outcome. It uses the past as an endorsement of its particular projection of the future—after which the past is swept away. We shall therefore give careful consideration to the role of history in the legitimation of Brasília; and, moreover, to the way we may use historical analysis to undermine any self-serving search for precedents.

Furthermore, I have suggested that modernist decontextualization rests on a theory of transformation in which the radical qualities of something totally out of context colonize that which exists around it. This something may be a single building conceived as an enclave of radical aesthetics and social practices within an existing city, or an entire city designed as an exemplar for the nation. The question for critical analysis is whether such an architectural set piece does not come to represent merely its own monumental disconnection. Do its innovations order the landscape around it, or do they just refer to themselves in sculptural isolation? These questions suggest two types of investigations in Brasília: one focusing on the semantic conventions of modernism's radical system of architectural representation and the other on whether the social values embodied in this system have generated new social practices.

The latter point relates to a second set of issues concerning the identification in modernist doctrine of the aesthetic and the political in the organization of social life. As Bürger (1984: 35–54) argues, a basic aim of all the European avant-garde movements was to reorganize social practice through the innovations of art, and thus negate "the status of art in bourgeois society as an

institution that is unassociated with the life praxis of men." There are various ways to interpret this intention in modernist architecture as our study of the CIAM model city suggests. It seems to involve an expansion of the concept of the political to include daily life and especially the home since the experience of revolutionary kinds of residential space and organization is seen as the primary means of effecting a transformation of the whole field of social relations. On the one hand, such an expansion might open new arenas for political action, involving issues related to residence (those of housing, women, family, neighborhood, the poor, and ecology, for instance)—issues marginal to the traditional political arena of men, labor, the state, and parties but issues which have of course been crucial to the notion of cultural revolution and grassroots social movement in recent decades. In this possibility, the modernist city generates new and subversive political identities among those usually excluded from power. On the other hand, one could view state-sponsored architecture and master planning as new forms of political domination through which the domains of daily life, previously outside the realm of politics, become targets for state intervention. In this sense, the defamiliarizations and decontextualizations of the modernist city are but attempts to replace the chaos of the capitalist city with a new, predictable, and controllable beginning from which planners could realize the dream of a rational domination of the future. In Brasília, we shall find both possibilities; and often, it is the tension between the two that drives its development.

FOUR

The Death of the Street

The discovery that Brasília is a city without street corners produces a profound disorientation. At the very least, the realization that utopia lacks intersections means that both pedestrian and driver must learn to re-negotiate urban locomotion. In a larger sense, it may signal that "the man multiplied by the motor"—to use a shibboleth of futurism—has at last realized his utopia. In other Brazilian cities, the pedestrian strolls to the corner of almost any street, waits for the light, and with some security ventures to the other side. In Brasília, where the *balão*, or traffic circle, replaces the street corner and where there are therefore no intersections to distribute the rights of way between pedestrian and vehicle, this passage is distinctly more dangerous. The resulting imbalance of forces tends, simply, to eliminate the pedestrian: everyone who can drives. The absence of the rite of passage of street corners is but one indication of a distinctive and radical feature of Brasília's modernity: the absence of streets themselves. In place of the street, Brasília substitutes high-speed avenues and residential cul-de-sacs; in place of the pedestrian, the automobile; and in place of the system of public spaces that streets traditionally support, the vision of a modern and messianic urbanism (figs. 4.1–4.5).

At the scale of an entire city, Brasília thus realizes one of modern architecture's fundamental planning objectives: to redefine the urban function of traffic by eliminating what it calls the corridor street, the street edged with continuous building façades. In its critique of the cities and society of capitalism, modern architecture proposes the elimination of the street as a prerequisite of modern urban organization.[1] It attacks the street for a number of reasons. On the one hand, it views the corridor street as a cesspool of disease. On the other, it considers the street an impediment to progress because it fails to accommodate the needs of the machine age.

Yet, modernist planning derives only in part from public health concerns and technological innovations. More profoundly, modern architecture attacks the street because, as we

Fig. 4.1 Largo do Pelourinho with a view of the museum of the city and the former slave market, Salvador, 1980

Fig. 4.2 Plaza of the Three Powers with a view of the Planalto Palace and the museum of the city, Brasília, 1980

Fig. 4.3 Praça Tiradentes with a view of the former Palácio Municipal and jail and the monument to Tiradentes, Ouro Preto, 1980

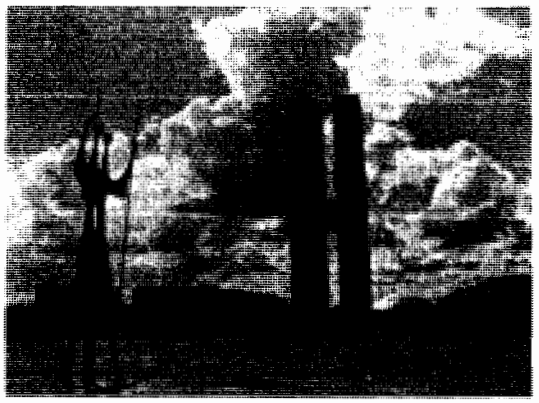

Fig. 4.4 Plaza of the Three Powers with a view of the National Congress and the statue *The Warriors*, Brasília, 1980

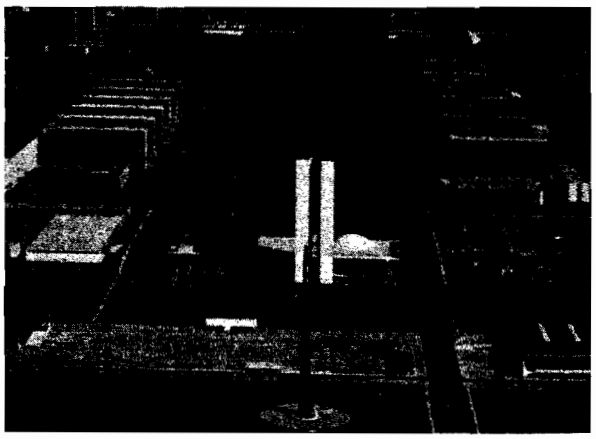

Fig. 4.5 Aerial view of the Plaza of the Three Powers and the Esplanade of the Ministries, Brasília, 1981

shall see in this chapter, it constitutes an architectural organization of the public and private domains of social life that modernism seeks to overturn. In the type of city modernism attacks, the street is both a particular type of place and a domain of public life. The architectural organization of this domain structures the entire cityscape in terms of a contrast between public space and private building. In sustaining this contrast, the street embodies the concept of the public defined in relation to the private. Thus, the street is not simply a place where various categories of activity occur. It also embodies a principle of architectural order through which the public sphere of civic life is both represented and constituted.

That the street embodies such a discourse between the public and the private will become clear when we examine its structure in the preindustrial city and its elimination in the city of modern architecture. Accordingly, in this chapter we shall consider the street (and what has replaced it) in two contrasting types of urbanism, that of preindustrial Rio de Janeiro and Ouro Preto and that of Brasília. We shall ask what the design and planning of streets in these examples may tell us about the structure of urban organization in different types of cities. In addition, we shall ask what this organization may tell us about the nature of ruling political regimes and about their relations to society. For I shall suggest that to compare the structure of public space in the preindustrial cities of a colonial empire and in the administrative capital of a modern bureaucratic state is to reveal different types of urban order as concretizations of contrasting political regimes. Furthermore, it is to expose very different conceptions of what constitutes the public and the private in the relations between civic authority and civil society.

I contrast modernist with preindustrial urbanism in Brazil because Brasília was designed to transform, both architecturally and socially, an urban way of life established in preindustrial cities. Thus, European modernism attacks the nineteenth-century city in large measure because its preindustrial physical foundations, dominated by the "ruthless rule" of private property, does not meet the requirements and consequences of industrialization. In Brazil as in Europe, we must therefore assess the structure of preindustrial urbanism to understand the significance of modernist transformations.

Preindustrial urbanism in Brazil crystallized into a national pattern during the late eighteenth and early nineteenth centuries, and I focus on Ouro Preto and Rio de Janeiro because they were capitals, respectively, of these centuries. During this period, Brazil's large cities emerged as dominant, radiating centers of cultural, social, and attitudinal influence, establishing

regional (in the case of Ouro Preto) and national (in case of Rio) patterns of urban form as well as of urban society.[2] As urban life crystallized and expanded in Ouro Preto around its gold production and in Rio around the arrival of the Portuguese court from Lisbon, both capitals became exemplary centers for their respective domains. They served as vehicles for change in the hinterland and projected their patterns of urban organization to other cities. Thus, in the periods in which we shall look at them, Ouro Preto and Rio express dominant patterns of preindustrial urbanism in Brazil. These patterns are the final result of three centuries of colonial endeavor. They reveal a synthesis of the most characteristic and fundamental features of preindustrial urbanism, one no longer dependent either socially or culturally on rural patrimonial society and one not yet transformed by industrialization.

While industrialization certainly changed this synthesis, it continues to represent a basic pattern of social life and spatial organization in many if not a majority of small Brazilian cities. This pattern remains important because although it is often assumed that urbanization is a product of industrialization, there is in fact a lack of correlation between the two processes in Brazil.[3] Since 1940, cities in the nonindustrial regions have been growing about as fast as cities in the industrial regions. Essentially, these cities remain pre- or nonindustrial, expanding on the foundations of the early nineteenth-century urban pattern. Thus, the contrast I shall draw between modernist and preindustrial urbanism is not simply an exercise in historical analysis but is addressed to the issues of urbanization in contemporary Brazil.

The corridor street is basic to these issues because it constitutes the architectural context of the outdoor public life of Brazilian cities. In its preindustrial form, this context is defined in terms of a contrast between the street system of public spaces and the residential system of private buildings. It is this relation between the public and the private, with its consequences for social life, that Brasília subverts.

To understand how the street orders the public and private domains and how its elimination in Brasília affects this order, we must first determine how the street can mean anything at all. One way of doing this is to identify the architectural conventions that architects and planners use in designing urban spaces—of which the street is the principal type—and that are experienced in everyday life as an architecture already built. If we analyze these conventions in preindustrial Rio de Janeiro and Ouro Preto, the significance of the death of the street in Brasília will become apparent.

4.1 The Architectural Context of Street Life

One of the most profound shocks of migrating to Brasília is the discovery that it is a city without crowds. It is not the absence of crowding that migrants complain of, but rather the absence of the social life of crowds that they expect to find in the public places of a city. In interview after interview comparing Brasília with hometowns of all sizes, Brasilienses register this basic difference: in Brasília "there are no people in the streets," the city "lacks crowds" and "lacks the bustle of street life." The absence of an urban crowd has earned Brasília the reputation of a city that "lacks human warmth."

Brasilienses consistently attribute this lack of street life to several factors, such as the enormous distances separating buildings, and the segregation of activities into discrete urban sectors. But the most common explanation is at the same time the most profound. It is that Brasília "lacks street corners." This observation refers to the absence in Brasília of the entire system of public spaces that streets traditionally support in other Brazilian cities, to the absence not only of corners but also of curbs, sidewalks edged with continuous façades of shops and residences, squares, and streets themselves. It is an explanation that uses the corner as a metonym for the street system of exchange between people, residence, commerce, and traffic. It is one that explicitly draws a connection between the public spaces of a city and the public life streets support (figs. 4.6–4.9).

The nature of this connection is suggested in the following typical comparison of a hometown and Brasília, given by an official of the capital's development corporation (Novacap). This civil engineer was born in a small city in the interior of the northeastern state of Ceará. He moved to the state capital, Fortaleza, for his university studies and remained there for many years after completing his degree. For reasons of better employment, he moved to Brasília in the mid sixties. Describing his first year in the city as a period of *brasilite*, 'estrangement', he attributed his "allergy to Brasília," as he called it, to the absence of the kinds of "traditional public places of encounter" he was used to, especially the neighborhood street corner. He defined the social importance of corners by calling them "points of sociality" in the neighborhood (*pontos de convivência social*). These were the most important places of (generally male) encounter and public activity in the residential community. In his neighborhood in Fortaleza, for example, he described "X's corner," named after a store-restaurant-bar that occupied a corner building site, as the place to go whenever he wanted to

Fig. 4.6 Residential street in the neighborhood Barra Funda, São Paulo, 1988

Fig. 4.7 Residential Access Way L1, Brasília, 1980

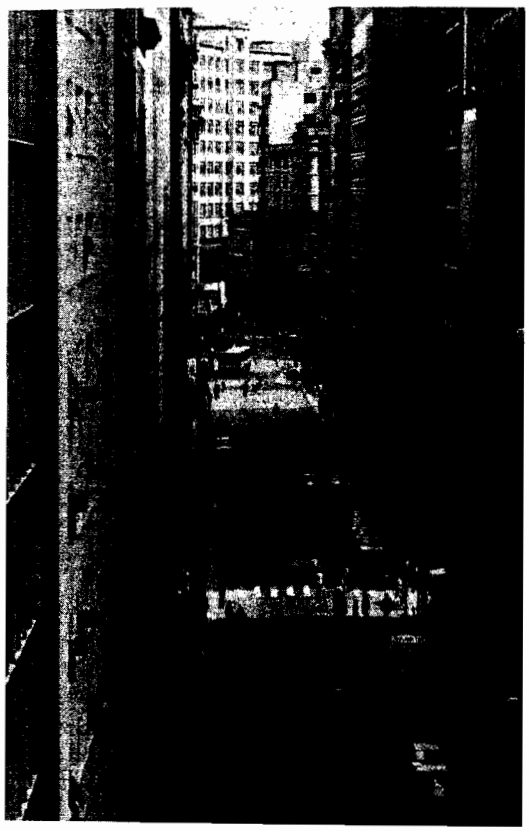

Fig. 4.8 Rua Boa Vista, downtown São Paulo, 1988

Fig. 4.9 West Residential Highway Axis, Brasília, 1980

meet a friend, pass the time, find a neighbor, or hear the news. This corner was his neighborhood's information nexus, its outdoor living room so to speak.

In Brasília, however, he found that the lack of corners (i.e., of the street system of public spaces) had an interiorizing effect; it forced people to remain in their apartments and replaced the spontaneity of street encounters with the formality of home visits. "To meet a friend I practically had to go to his house or he to mine." As people are often more reluctant, he claimed, to receive friends in their homes than to meet them in a public place, this interiorization of social life had the effect of restricting and ultimately constricting his social universe. To one accustomed to an outdoor public, to the sociality of the corner, its elimination produced not just an interiorization of social encounters, but also a profound sense of isolation. In planned Brasília, there are no urban crowds, no street corner societies, and no sidewalk sociality, largely because there are no squares, no streets, and no street corners.

Brazilians expect to experience the daily life of crowds in cities not only because they anticipate a larger population in cities than in the country, but even more because they expect to find streets in a city and because the street is the customary arena of *movimento*—of the public display and transactions of crowds. This expectation is based on the distinction that the very existence of *ruas*, 'streets', makes between urban life and rural life. Rural communities (*aldeias*, *povoados*, *fazendas*, and *roças*) do not have *ruas*; rather they have *estradas*, 'roads', and *caminhos*, 'paths'. Only cities—those settlements officially classified, regardless of their size, as *cidades* and *vilas*—have *ruas*. Thus, one of the urbanite's expressions for going downtown, to the commercial center of the city, is *vou à rua*, 'I'm going to the street', and the peasant's expression for going to town from the hinterland is exactly the same. Therefore, the word "street" signifies "city" because it refers to a particular type of place that only cities have.

This type of place has a distinctive physical form that constitutes a fundamental difference between urban and rural architecture. This difference is most clearly perceived in preindustrial Brazil, but it applies equally to the physical foundations of industrialized, though not modernized, communities. In rural settlements, the basic pattern of land use is one of detached buildings separated from each other on all sides by open space, some of which is used for circulation (fig. 4.10). In contrast, the preindustrial city is, from an architectural perspective, a solid mass of contiguous buildings out of which the spaces for circulation are carved. The buildings are not freestanding (with

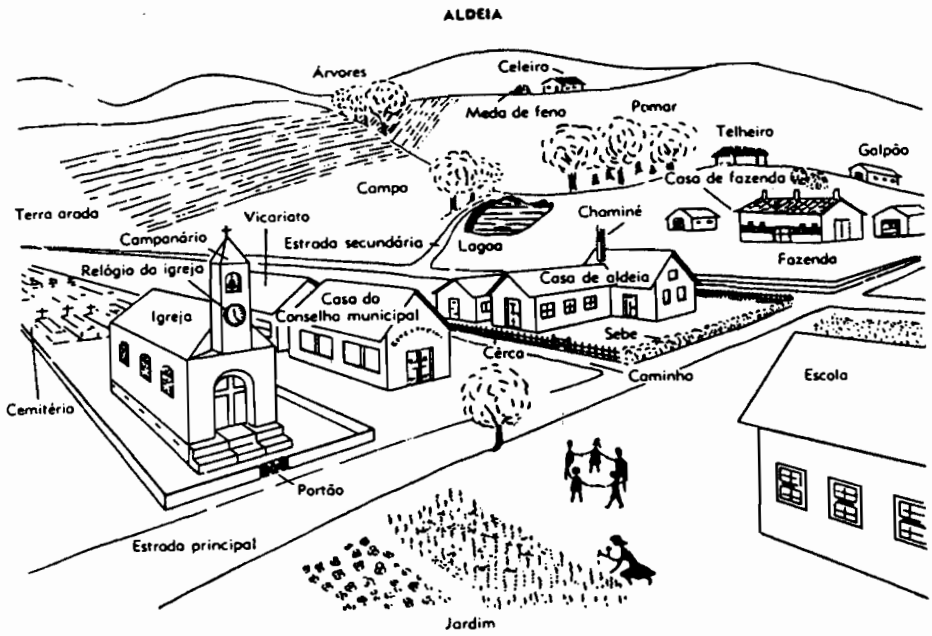

Fig. 4.10 Dictionary illustration of stereotypical pattern of rural land use and building (*Novo Michaelis* 1979: 49)

Fig. 4.11 View of the Largo do Pelourinho, Salvador, 1980 (see fig. 4.1)

significant exceptions discussed later), and the bounded spaces are streets used primarily for circulation (fig. 4.11). Moreover, the preindustrial city generally expands by enclosing the open, rural space around it with buildings. Even where city space is progressively filled in, new buildings usually maintain this spatial sense of enclosure which defines the street.

The street is not, however, just a passage for traffic. Its space is only one element of a complex form. As an architectural configuration, the street is comprised of a space open to the sky and the physical frame that contains and shapes it, that is, the façades of the buildings, and a floor. The latter is usually paved and differentiated into two or more levels: the base level of the buildings and the roadway proper, at a lower level, the two being mediated by a third level of curb, sidewalk, and steps which differentiates the street into distinct but interpenetrating zones of activity (see especially figs. 4.6, 4.8, 4.19, and 4.28). The interplay of the expansion of this floor and the height and character of the surrounding buildings gives the impression that the sky has a defined height. The street system of public spaces comprises all the elements of this architectural configuration.

The urban square is a special case of the street defined in these terms.[4] It is evident in Jean Baptiste Debret's 1839 plan of Rio de Janeiro (fig. 4.12) that the square in Brazilian cities typically develops in relation to the street in one or a combination of ways, for example, as a widening or lateral expansion of main thoroughfares, usually called a *largo* (fig. 4.12, e, f, g, h); as a point of access to main thoroughfares at the city gate or port (fig. 4.12, A); at the intersection of principal radiating streets, often distinguished by the term *praça*; as an outlying piece of land that the city eventually absorbs and frames into a square, called *rocio* or *rossio* (fig. 4.12, d); or, as a parvis, an area in front of a church that eventually becomes surrounded by buildings and connected to the street system (fig. 4.12, D, e, V). In all of these cases, the square is defined by the same architectural features as the street (compare figs. 4.1, 4.3, and 4.13).

To see how these features constitute the architectural context of street life in the preindustrial city, we may look at Debret's illustrations of nineteenth-century Rio (figs. 4.13–4.18). But for obvious changes in such things as dress and transport, these scenes of the street and square present a remarkably contemporary view of street life in Rio and especially in smaller cities throughout Brazil. With great ethnographic accuracy, they depict the life of Rio's outdoor public domain—the daily and ceremonial activities of its crowds, the habits of its strollers, shoppers, vendors, and paupers.[5]

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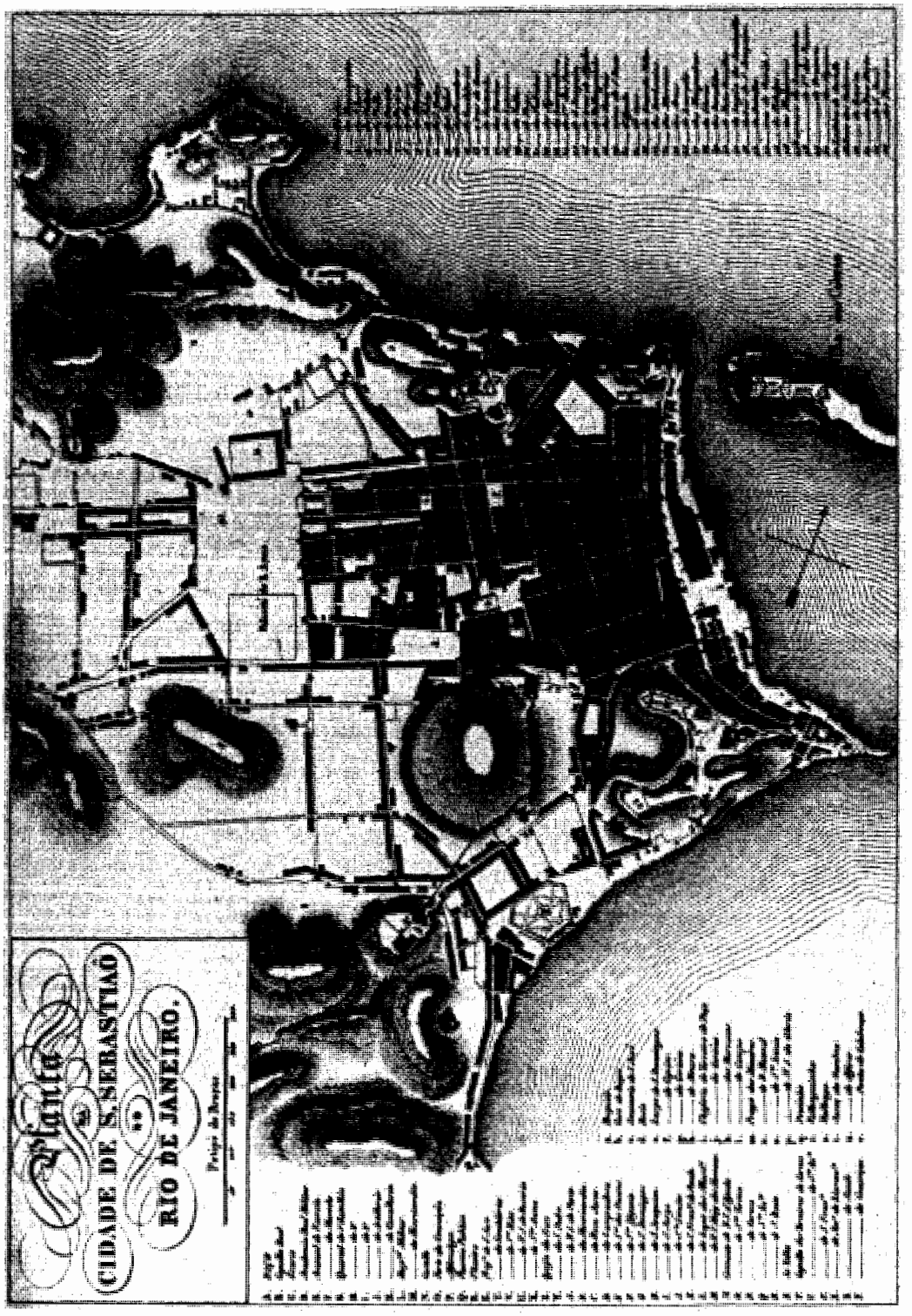

Fig. 4.12 Jean Baptiste Debret, Plan of the City of Rio de Janeiro, 1839

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Debret's illustrations portray Rio during its initial period of cultural and political primacy, after the relocation of the Portuguese court from Lisbon in 1808 had transformed it from a sleepy colonial city of 60,000 inhabitants into Brazil's most influential city and the capital of an empire. What is especially important for our purposes is that the presence of the court engendered an urban crowd unlike any previously found in Brazilian cities—a vast body of all classes of people permanently residing and working in the capital. By the time Debret arrived nearly a decade after the royal hegira, Rio's population had doubled. The afflux of 24,000 Portuguese and numbers of other Europeans metamorphosed the life of the capital. The Crown embarked on a project of institution building. It created numerous institutes of higher education (including those of military science, engineering, medicine, and fine arts), a national library, and a myriad of government bureaus, all of which were new to Brazil. These institutions required new buildings, and the resulting public works gave a definitive character to the civic, commercial, and residential domains of the city. As the titles and offices of the court attracted wealthy Brazilian families to the capital, Rio became in turn a condensor and relay of an idealized pattern of urban life, its physical form serving as a recognizable setting for its crowds, customs, fads, and peculiar synthesis of European and African sensibilities.[6]

If we compare Rio's principal civic square, a street in the downtown area, and a street in a residential neighborhood (figs. 4.13, 4.16, 4.17), we see that a limited number of factors define and mediate the contrast between the street's solids and voids. These establish a characteristic pattern of forms and massings throughout the city. The appearance of the architectural frame of public space is similar in each case. Its most significant feature is the street's lining of contiguous façades: each building adjoins the next, and each is built exactly in line with its neighbor in relation to the sidewalk. Thus, the public space of the street and square is contained by a solid front of buildings. Although most buildings have a backyard, or *quintal*, which serves as a *private* outdoor space (not visible in the illustrations), there are no front yards of any kind to separate their façades from the public outdoor space. Rather, their aligned façades are built flush with the sidewalk, and their doorways give out immediately onto the public street.[7]

A number of architectural elements mediate this opposition between the street's wall lining of façades and its passage of space. These elements relate the private domain behind the wall to the public domain in front of it. The first such elements that come to our attention are doors, windows, and balconies. It is

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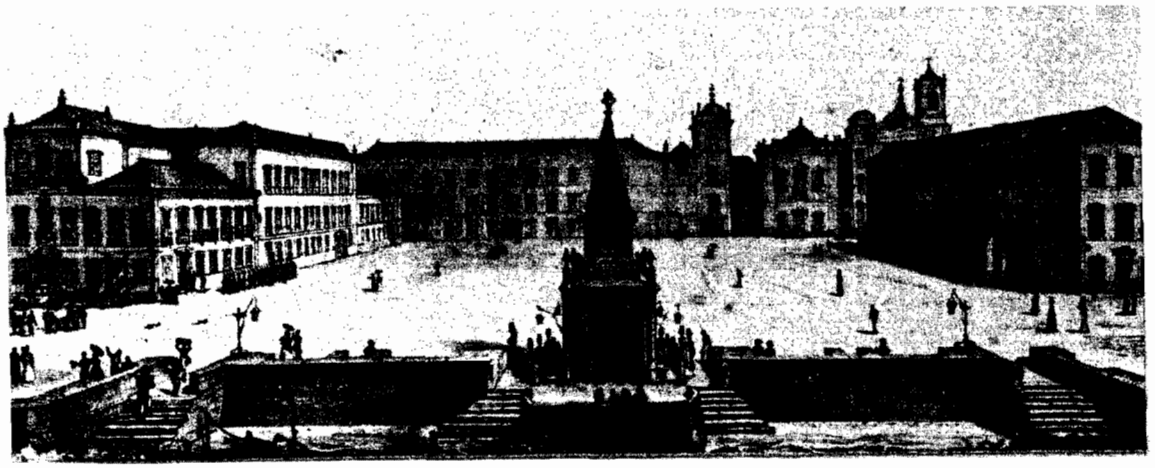

Fig. 4.13 Jean Baptiste Debret, View of the Largo do Palácio, Rio de Janeiro (1816–31)

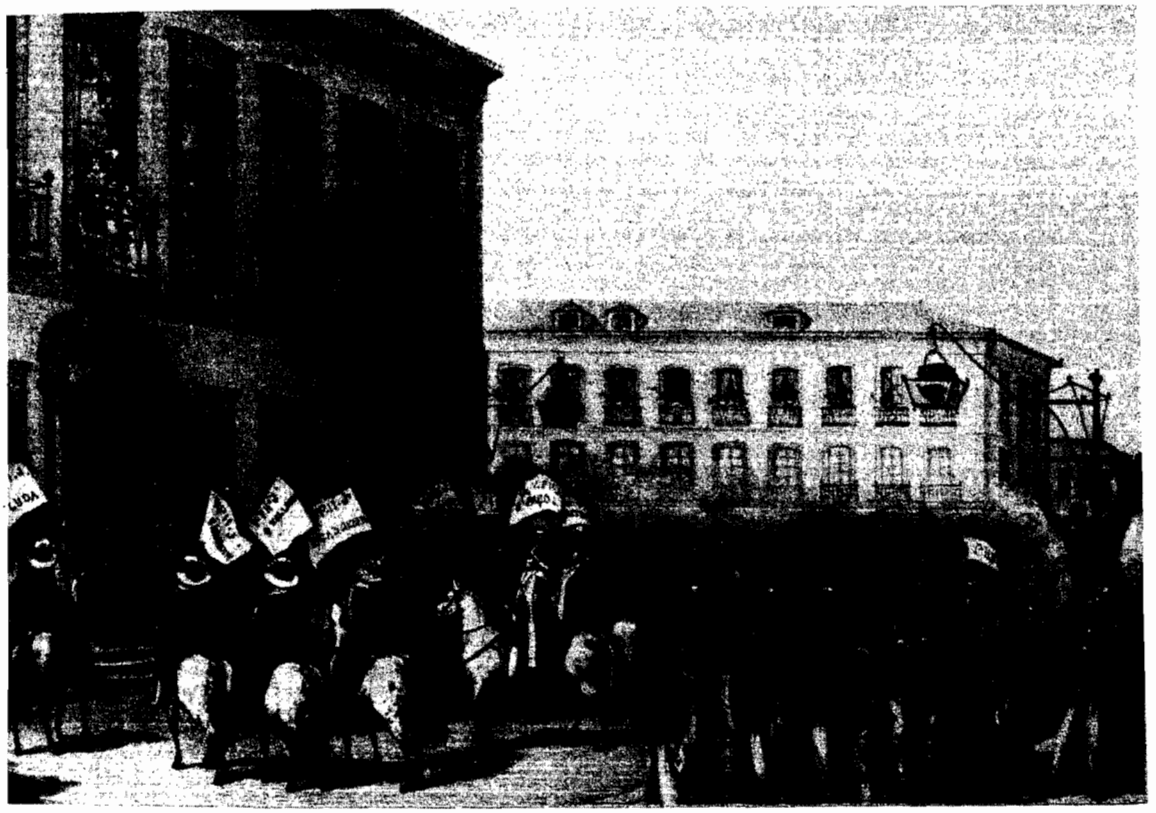

Fig. 4.14 Jean Baptiste Debret, The Acclamation of Dom Pedro II, Largo do Palácio, Rio de Janeiro, 1831

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Figure 4.13: View of the Largo do Palácio. An inventory of the buildings customarily erected around a city square gives an initial picture of its social life. Figures 4.13, 4.14, and 4.15 show different views of Rio's palace square, the Largo do Palácio, (also known as the Largo do Carmo and today the Praça XV de Novembro). The perspective view, figure 4.13, shows the following buildings. Formerly the residence of the viceroy and before that the mint, the royal palace occupies the entire left side of the square. It was primarily used for royal receptions and other court affairs. Its long façade served as a customary place of communication between the court and its subjects: the royal family and officials used its windows and balconies to air important pronouncements to the public (represented by those gathered in the square below) and to receive, on festival days, the processions that toured the square before entering the imperial chapel. As one side of the square is occupied by the court, another is taken by the church. The entire back side of the square houses the church, chapel, and cloister of Carmo, with special passageways constructed for direct communication between the buildings of church and state. By convention, one wall of the Brazilian square—in this case the right one—is given over to the establishments of civil society. Here, we find the houses of Portuguese merchants, luxurious shops, and a number of units rented by French entrepreneurs who converted them into cafés, elegant billiard parlors, and fashionable hotels. At a remove from the square along the side of this block facing the sea is a customhouse and shipping depot. Finally, a quay and a monumental fountain form the seawall of the square.

The inventory of buildings around the city's principal square reveals that it is the domain of the city's most important collective institutions, and for this reason the locale of enterprises that depend on their patronage. It is the domain of institutional power, both religious and political—the lack of their spatial distinction being significant. Church and state always share the principal city square in Brazilian cities (and throughout Latin America). To suggest the significance of this pattern, we may note that in many European cities (Spain and Portugal excepted) these institutions are customarily found on different squares. They are spatially segregated around a municipal square of government institutions, a church square, and a square for the transactions and associations of the market. The physical separation of the institutions of church, state, and market became a prominant pattern of urban organization during the High Middle Ages in the type of city Weber (1978) describes as the city-commune, the city of burgher democracy. In this pattern and its contrast in Latin America, we have examples of how the physiognomy of a city suggests the nature of its political organization.

Figure 4.14: The Acclamation of Dom Pedro II. Figures 4.14 and 4.15 illustrate two types of activities that characterize the crowd of the civic square. Both types are noncommercial activities and both relate to the concentration of institutional power around the square, but in different ways. Figure 4.14 commemorates the "acclamation" of five-year-old Pedro II on 7 April 1831. It marks his father's abdication of the Brazilian throne in his favor and his presentation to the public as future emperor. This celebration is an example of an officially sponsored ceremonial congregation of the outdoor urban crowd. The crowd assembles both as spectator and actor in the rituals of church and state during which these institutions use public displays to reiterate their authority. It is the display of order, both of the sponsoring institutions and of the crowd, that is ritually important. The crowd is organized according to the most important divisions of civil society (however few these may be in the Brazilian case), and it functions as a public body to represent these divisions and their articulation in ceremonies that emphasize the order and legitimacy of society's hierarchical structure. The spatial order of these divisions reproduces their social order, and thus participation in such ceremonies teaches the ruled about the orders of rulership and involves them in an act of veneration.

Thus, figure 4.14 shows the following spatial organization of the participants which is itself a representation of their social and political relations. The young emperor occupies the left side of the central window, standing above and to the right of his brothers, behind whom are the members of the Regent Council. Facing the Crown and encircled by its military force are the officially designated representatives of the crowd: a deputation of justices of the peace on horseback, each representing a different residential neighborhood and carrying its colors and emblems. Behind a company of artillery that separates the crowd from both the Crown and its appointed representa-

Fig. 4.15 Jean Baptiste Debret, The Refreshments of the Largo do Palácio, Rio de Janeiro (1816–31)

Fig. 4.16 Jean Baptiste Debret, The Barber Shop, Rio de Janeiro (1816–31)

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tives, we find the multitudes waving the yellow and green branches of the coffee tree, these being the imperial colors. Face to face with imperial authority, this Brazilian crowd of April 1831 is obviously not the crowd of the French Revolution. It is not one poised on the edge of insurrection, nor does it even suggest the possibility. Its lack of political organization in the public square of the city—the fact that the people are not organized into popular constituent groups—is an indication that traditionally the Brazilian square is less a forum for the protests of civil society than one for the ceremonious reiteration of legitimate authority. Its political monologue between state and society suggests the nature of Brazilian political structure.

Figure 4.15: The Refreshments of the Largo do Palácio. As much as the square is a stage for formal ceremony and political assembly, it is also the city's *sala de visitas*, its public visiting room. It is a realm of informal encounter and congregation, a place for leisure-time socializing, a place to see and be seen. In this aspect, the square's activities are informal, quotidian, and essentially noncommercial. People gather to socialize away from the restraints of the home. Their activities consist principally in the varieties of conversation: in discussion, exchanges of opinion, news, and information, anecdote, and flirtation. The former are, of course, indispensable to the political life of citizens, and the square provides the setting for the formation and exercise of public opinion. These informal activities occur among and between all classes of people as all have free access to the square. It is the heterogeneity and voluntarism of the square's encounters that distinguish the social activity of its room from that of the house.

As figure 4.15 illustrates, the square's conversations are usually abetted by some form of refreshment and entertainment, services that make the social hour of the square pass agreeably but that do not constitute business. The square is not the domain of the economic; it is the domain of informal and extradomestic sociality, of conversation and pastime. In this illustration, Debret portrays the habits of one of the groups that frequents the square every day: the "middle class of little capitalists," as he (1978: 202) calls them, those who own one or two slaves whose daily earnings, collected weekly, are sufficient income for their masters to enjoy leisure time. The afternoons of this leisure time are spent in the square. After the midday siesta, these "little capitalists" habitually gather in the square from 4 o'clock until the Ave Maria at 7. By 4:30, every seat along the quay wall (street furniture) is taken. Debret (1978: 202–3) relates that the conversations of this leisured class are punctuated by "a little ritual" of purchasing a sweet and a swig of fresh fountain water from the street vendors. The game is to become widely recognized as a big spender on sweets, a favorite and flirtatious client, and so become fêted by all the vendors of the square. Just as the "little capitalists" have their corner of the square, other groups have by informal agreement and by habit marked out their areas of congregation. Thus, the background of the illustration reveals merchants, shopkeepers, street vendors, ship captains, ship brokers, sailors, foreigners, court officials, dock workers, and a policeman whose responsibility it is to maintain the peace of the square.

Figure 4.16: The Barber Shop. The area surrounding the civic square in Brazilian cities, the *centro*, is the commercial domain of the city, its downtown. It is a warren of streets devoted to commerce, shopping, and services, and its street-life revolves around the economic. In Debret's time as well as today, an illustration of one of Rio's principal downtown streets, such as the Rua do Ouvidor, would show wall-to-wall commercial establishments at street level, and warehouses, manufacturers, hotels, and residences on the floors above. Figure 4.16 portrays the mixed residential and commercial use of the ground level typical of its side streets. In the *centro* of the city, many people earn their living on the pavement: the peddlers, musicians, knife-sharpeners, bootblacks, beggars, and the like. Literally one step removed from this economy of the pavement are the stallholders, exemplified in the illustration by the barbers. The stall is little more than a hole-in-the-wall, and its activities invariably spill out onto the pavement. Even today, stalls are rarely shut off from the pavement by a barrier, such as glass. Rather, the activities of the street flow into and out of them through a permeable building façade, which thus creates a liminal space neither precisely public nor private.

The barber shop of the illustration is a typical stall of many services. Its signboard reads "Barber, Hairdresser, Blood-letter, Dentist, and Applier of Leeches." The barbers are shown preparing

Fig. 4.17 Jean Baptiste Debret, The Procession of the Emperor of the Holy Ghost, Rio de Janeiro (1816–31)

Fig. 4.18 Jean Baptiste Debret, A Bureaucrat Promenades with His Family, Rio de Janeiro, 1820

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Figure 4.17: The Procession of the Emperor of the Holy Ghost. Figures 4.17 and 4.18 present scenes of streets in residential neighborhoods. The activities of these streets correspond to those of the civic square in several ways, but their referents are different. As in the square, their congregations are not based on commercial interests, though they are often aided by the refreshments of the local bar and restaurant. They can be of a formal and organized nature, as in processions of the neighborhood patron saint, political assemblies of neighborhood residents, or even street games of neighborhood children. They are also informal and spontaneous, as in sidewalk conversations between neighbors. Their points of reference, however, tend to be different: they involve their actors less as citizens of the city as a whole than as community residents and neighbors. They refer to the neighborhood as a space within the city having a distinguishing set of identities, and to the family household as providing both the unit of residence and the identity of residents.

Figures 4.17 and 4.18 illustrate two kinds of street processions. The organizational basis of the first is the community; that of the second is the household. Figure 4.17 portrays a religious procession in many ways typical of the various kinds of processions that peregrinate through the streets of Brazilian neighborhoods. It illustrates the Procession of the Emperor of the Holy Ghost. Its members are generally neighbors who form an association or fraternity to prepare for the event throughout the year. The procession takes place during the week prior to the festival of Pentecost, which occurs on the seventh Sunday after Easter to celebrate the descent of the Holy Ghost upon the Disciples. In contrast to processions that originate in the city square under official and citywide patronage, or to those of ecclesiastical sponsorship in the neighborhoods, this one is a popular festival. It is organized by the people of the neighborhood, in the space of their own community, without participation, recognition, support, or approval of either the church or the state. It depends solely on the voluntary contributions of local residents. As an example of popular street life and culture, it is especially interesting because it is a kind of mock procession. As in *carnaval*, it celebrates parody as much as anything else, mocking established social, political, and ecclesiastical orders. In the first place, the Holy Ghost has no emperor. In the second, this emperor is elected by popular vote. He is a well-liked, usually poor and buffoonish neighbor; in every respect a mock emperor. In Debret's illustration, there is the added parody that the emperor is a child led around the streets by adult revelers who constitute his court of page, standard-bearer, musicians, and alms collector—perhaps a reference to the future emperor, Pedro II, who was a boy when Debret witnessed the procession. At the end of the procession, much to the church's disapproval, the court places the icons of the Holy Ghost (which they carry through the streets) on a church altar and then engages in a gluttonous feast supported by charitable contributions from the community. Because the community sponsors the feast, the emperor can (and should) be a poor and popular man. Thus, the illustration reveals an important aspect of Brazilian street life. It identifies the context in which the irony of the "popular voice" is most often heard: the neighborhood street.

Figure 4.18: A Bureaucrat Promenades with his Family. Thus far, we have discussed the street as a domain of extradomestic public life for both the city and the neighborhood—as one in which the restraints, conventions, and mores of the home are relaxed if not removed. But at times the neighborhood street is also an extension of the domestic order of the houses that form its physical frame. The street's façade provides for the interpenetration of public and private spaces at selected points (doors, windows, balconies, etc.), and its space is conceived of as a room like the living room of a house. Just as the façade wall constrains, both literally and especially symboli-

cally, domestic relations from disrupting the freedoms of the street, the immediacy of its contact with the sidewalk facilitates their continuation into public space.

Figure 4.18 illustrates the extension of domestic order and authority into the public space of the neighborhood. It also portrays the space of the street (as well as its façade) as a place for the public display of family fortune. Such extensions of the household into the street occur at specific times: after work, on holidays, and especially on Sundays. Here we see a bureaucrat of "medium fortune" leaving his house with his family for a promenade through the neighborhood. The promenade is a highly ordered affair. Its spatial arrangement is based on, and publically reiterates, the domestic ranking of its members. Of course, the size and elegance of the procession are all-important to the family's prestige. "According to the ancient custom observed in this class," Debret (1978: 182) relates that the head of the family "opens the march." In single file, he is followed by his children, ordered by age (youngest first) and by his wife. After the master's family come the household servants, ranked according to their own authority relations: the bureaucrat's wife is followed by her maid (a more prestigious light-skinned slave), who is followed by the nursemaid, the nursemaid's slave (i.e., the slave of a slave), the master's valet who keeps order at the rear of the column, and two young slaves in their "apprenticeship" phase. Little conversation transpires in single file as the purpose of the procession is a display of family status and not pleasantries. Although such formalities are no longer in fashion, the family promenade and other forms of conventionalized strolling remain important social activities in Brazilian neighborhoods —especially on Sunday afternoons in small cities when the family as a group makes the rounds to the houses of neighboring relatives and close friends. Such extensions of domestic relations into the public space of the community familiar-ize the neighborhood street. They bring into its room the propriety and morality associated with kinship relations. They set limits to the kinds of public behavior the community will tolerate, and these limits serve to distinguish the street life of the residential neighborhood from that of the downtown and the civic square.

important to note that because the façades are flush with the sidewalk, these openings provide a means of direct visual, vocal, and even tactile communication between the two domains, as is evident in the exchanges of conversation, food, service, money, and gestures (figs. 4.14, 4.16, 4.17). Thus, the street façade's function is complex: it defines by containment and separation interior and exterior, private and public, house and street (and all that is associated with these contrasting domains of social life) and yet provides for numerous kinds of passages between them.

As a selectively porous divider, therefore, the street façade constitutes a liminal zone of exchange between the domains it holds apart. It not only serves the need to negotiate boundaries, but also stimulates our fascination with liminality in that its passageways are usually marked for special public attention. Apertures are distinguished by the ornaments of carved lintels, entablatures, window frames, and balustrades; by the signboards of places of business; and by escutcheons displaying coats of arms and other emblems that announce family status in the public world. As a liminal zone, the street façade is on the one hand the exterior wall of the private domain and on the other the interior wall of the public.

In the latter sense, it defines the space of the street as a room, akin to the living room of a house, which is marked as such by

what we might call street furniture. Thus, not only the wall's apertures but also its surfaces are ornamented—by volutes, rosettes, stone drapery, and the like which appear as wall hangings of the public room. A feature typical of interior design that appears on the façade is the wainscot, the lower three feet of an interior wall finished differently from the upper part (figs. 4.16, 4.17). At waist height, the wainscot generally distinguishes the level of sitting in a room from that of standing. On the exterior façade, it functions to emphasize the street's character as a room and also to establish the zone where benches, seats, and tables are either built into the wall or placed on the pavement. The quay wall of the civic square (figs. 4.13, 4.15) was constructed as a two-tiered bench for sitting in the city's most public outdoor room.[8]

Thus far, we have discussed a number of architectural attributes that characterize the street as a domain of public life. The most important attribute is the opposition between the street's frame and its space which the others mediate in a variety of ways. This opposition is itself the basis of a fundamental convention of architectural order that structures the entire cityscape into a coherent and predictable pattern of solids (buildings) and voids (spaces). What is important about this convention for the study of cities is that it organizes the perception of solids and voids into a system of information, a legible code, about what the relations between them signify. In the case of the preindustrial city, this is a system of information about the meanings of public space and private building, and more generally about the articulations between the public and the private domains of city life. This architectural codification of the "brute facts" of perception occurs in two situations: in design, when architects make spaces and objects, defining one in relation to the other; and, in the everyday experience of an architecture already constructed. In both cases, the same perceptual categories are brought into meaningful relation through the conventions of architecture.

4.2 The Solid-Void/Figure-Ground Convention

Conventions are culturally recognized and socially sanctioned relationships between expressions and what these expressions stand for.[9] The conventions of architectural design are the elements of composition codified into norms and prescriptions of information. For example, the plan of a building is a conventional representation in two dimensions of a three-dimensional structure. To knowledgeable readers it contains a code of

building instructions and aesthetic relations. The use of classical pediments and columns on building façades is an easily recognized convention: that of quoting from the past as a way of indicating affinities with the idealized virtues of ancient republicanism. In each case, the convention is essentially a principle of difference—two dimensions opposed to three; the past opposed to the present. Architectural legibility, like any other, pivots on this principle: opposition creates a structure of signification capable of being invested with contrasting values, the identity of which history and prevailing ideology determine.

The principal convention of difference ordering the street in both perceptual experience and architectural composition is the organization of its solids and voids into figure and ground relations.[10] We perceive the city street as both a void and a volume of space contained by surrounding solids (fig. 4.19). As a void, it reveals these solids; as a volume it takes the shape of its container. The street thus constitutes a special kind of empty space; it is a void that has a defined shape, usually a rectangular volume. From the context of its containing solids, the street emerges as a distinct and recognizable figure, one which is empty but which has form. We may therefore consider the corridor street as a figural void.

The recognition of a figure requires the presence of a context, its ground, from which it appears to stand out. As studies in Gestalt psychology have shown, the figure stands out because it appears to possess a contour that separates it from the ground (fig. 4.20). As a common boundary between two fields, a contour can appear to shape one field more than the other. The field most shaped by the contour is perceived as the figure; the other is the ground. A figure is therefore a noncontinuous field against which the ground is perceived as a continuous field.[11] In the case of the street, the ground consists of the buildings—or any other visual boundary, such as trees—that give shape to the void. For example, imagine figure 4.20b as a city plan in which the street shown in three dimensions in figure 4.19 is represented in two dimensions as one of the white stripes. From these examples, the pattern is evident: where streets are perceived (and designed) as figural spaces, the buildings surrounding them function as ground. This pattern organizes the experience of urban space in three dimensions and in two, that is, both from the perspective of the person in the street as in figure 4.19 and from that of the plan as in figure 4.20b.

These figure-ground relations present a visual paradox that confirms the character of the street as a room. When buildings are ground to the figural space of the street, their walls must end at the space but paradoxically can have no boundary because the

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Fig. 4.19 Giuseppe Zocchi, Uffizi, Florence, 1754

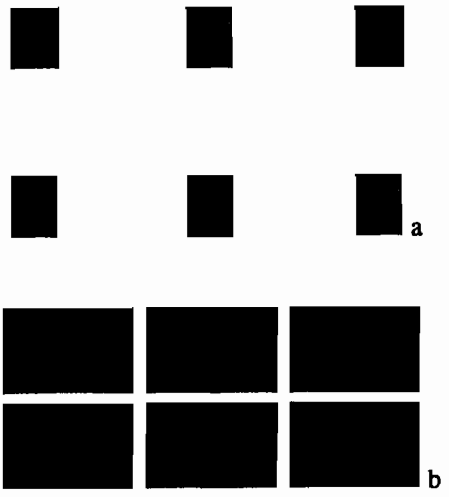

Fig. 4.20 Figure-ground relations

contours belong visually to the figure (the space) and not to the ground (the wall). In other words, the plane of the façade (its surface and edges) belongs visually to the space and not to the wall. The space of the street "steals" the façades of surrounding walls for its contours. This paradoxical condition creates the impression that the building façades are the interior walls of an outdoor room. The traditional architectural solution to this paradox of the wall that must stop but that has no boundary is to create a border around it that acts as an area of transition between figure and ground. This is done by applying ornament to the wall surface and by framing its edges and openings with a sidewalk along the bottom edge, a cornice along the top, pilasters at the sides, and window and door frames around the apertures (as in figs. 4.17–4.19). In addition to serving as decoration for the outdoor room, these framing elements have an important perceptual function: they confirm the figural character of the street and provide raised surfaces behind which the wall can comfortably end. They create a border condition in which their inner edges will be perceived as belonging to the ground (the wall) and their outer edges to the figure (the street) as its defining contour.

One of the most significant architectural features of the solid-void/figure-ground convention is its reversibility: figures may be either solids or voids, as one is but the negative of the other. In figure 4.20, consider the blacks as solids and the whites as voids, and compare figures 4.20a and 4.20b. In the former, the solids are figural and the voids ground, whereas in the latter these relations are reversed. Thus, buildings may be perceived and indeed designed either as ground (as in our previous

example) or as figure (consider a cathedral standing in a square for instance). In sum, solids may constitute the perceptual ground in contrast to which voids emerge as distinctive figures, or voids may constitute the ground in contrast to which solids appear as distinctive figures. There is in all of this a discourse of perception, if you will, between solids and voids and figures and grounds. Each exists only in its relation to the other, forming a structured set of perceptual differences. As the analysis of the street in Ouro Preto will demonstrate, it is the possibility of reversing these differences that give the solid-void/figure-ground convention great semantic utility in distinguishing architecturally the public and the private domains.

The analysis of this street convention has special relevance to the study of the city for a simple reason. Insofar as a circulation system of streets forms the anatomy of a city, its representational structure characterizes the urban order as a whole. This is so because the organization of the city's solids (buildings) and voids (principally streets and squares, but also courtyards) into figure-ground relationships promotes a perceptual order of these relations among the totality of architectural elements (figs. 4.23 and 4.24). Thus, the semantic structure of the street organizes the entire cityscape into a coherent and predictable order. This order serves both architects and inhabitants alike as a system of simple oppositions for elaborating aesthetic, political, and social values, as the comparison of Ouro Preto and Brasília will show.

Architects study this order through an analytical device known as the figure-ground plan. It represents the three dimensional solid-void structure of the city in two dimensions, and architects use it both in evaluation and in design. The plan consists of a blackening or hatching of either the solids or the voids—but typically the solids—to reveal their organization into figure and ground relations (figs. 4.21–4.27). Considering this analytical use, we may say that the solid-void/figure-ground convention has a special status in our investigation: based in the physics of perception, it is both fundamental to the everyday experience of objects and spaces and a convention that specialists use as a means of analysis and design.

When we compare, in approximately the same scale, the figure-ground plan of a typical preindustrial city with that of a modernist city, we make a startling discovery: these simple figure-ground relations produce strikingly *inverse orders of solids and voids* (figs. 4.21 and 4.22). As Rowe and Koetter (1978: 62–63) observe in their study of these Gestalt patterns, the preindustrial city is almost all black in the plan; the modernist almost all white. The former presents a manipulation of defined

Fig. 4.21 Figure-ground plan of Parma, 1830. Figures 4.21 and 4.22 show approximately the same area (350m × 530m) in the same scale (1:3460). Copyright 1983, The Cornell Journal of Architecture.

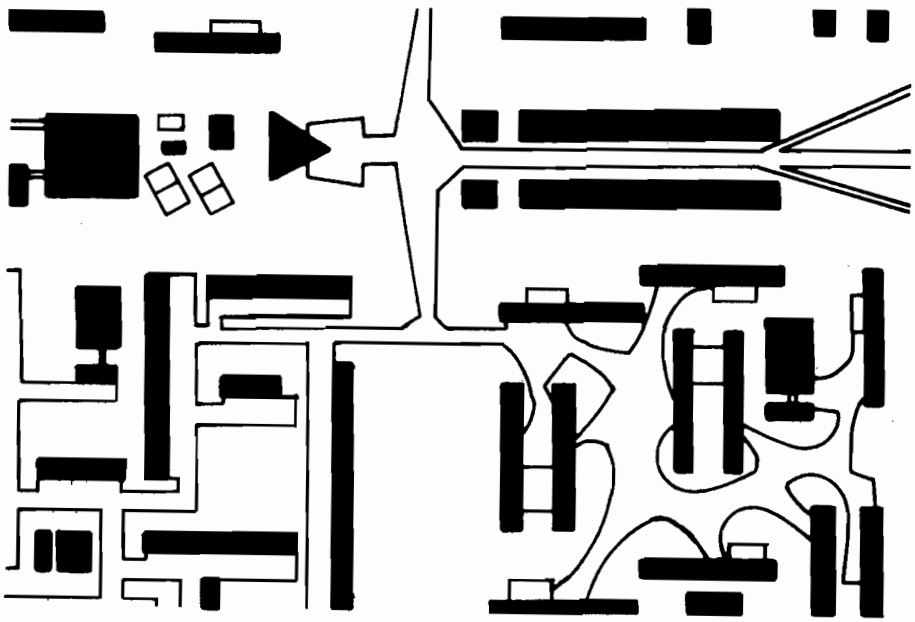

Fig. 4.22 Figure-ground plan of an east-west section of the South Wing, showing residential *superquadras* and commercial sectors, Brasília, c. 1960

voids (streets, squares, and courtyards) in largely unmodulated solids; the latter a manipulation of solids (buildings) in largely unmodulated voids. Each features an entirely different category of figure: in one, space; in the other, object. In the preindustrial city, streets read as figural voids and buildings as continuous ground (figs. 4.21, 4.23, 4.24, and 4.25). In the modernist city, streets appear as continuous void and buildings as sculptural figures (figs. 4.22 and 4.27). In the former, bounded spaces are defined by a solid mass. In the latter, isolated buildings stand free in boundless space.[12]

These comparisons are enormously suggestive about the principles of urban order. They demonstrate that even in supposedly unplanned cities, object-space relations are not produced haphazardly. Rather, they manifest a coherent order, a constructed logic, which is to say, an architectural convention worked out in different historical contexts. Like any other domain of cultural activity, architecture is never in this sense unplanned. There is no such thing, therefore, as the so-called organic or spontaneous city. Those cities which do not result from planners' decisions are only in the most narrow sense unplanned. They are not unordered or even unthought.

Moreover, it should now be evident that the formal conceptualization of the preindustrial city as a solid mass in which the public spaces of streets and squares are figural voids is not unique to the Brazilian cases we are considering. This elemental urban form of solids and voids has had an enduring presence in the occidental experience of city life. The figural street system developed its recognizable Western character as the arena of public commerce and congregation in Greece and her colonies from the fifth century B.C. onward, when especially the square—as an elaboration of the street—appeared as the outdoor forum for the ritual and political affairs of citizenship. It was formalized and carried to Northern Europe by the Romans and, after the eclipse of urbanization during the Dark Ages, again became the prominent form of urban organization as variously embodied in late medieval, Renaissance, and baroque interpretations. During the sixteenth century, the Spanish and the Portuguese transported their colonial version to Latin America, where they established the principal city square as the domain of the most important institutions of church and state (see discussion of fig. 4.13). Thus, in various incarnations and with somewhat different but related political meanings, it has been basic to the physical structure of Mediterranean, Northwestern and Central European, and Latin American cities.[13]

We are, therefore, considering a conception of urban order and a system of representing it that have dominated the Western

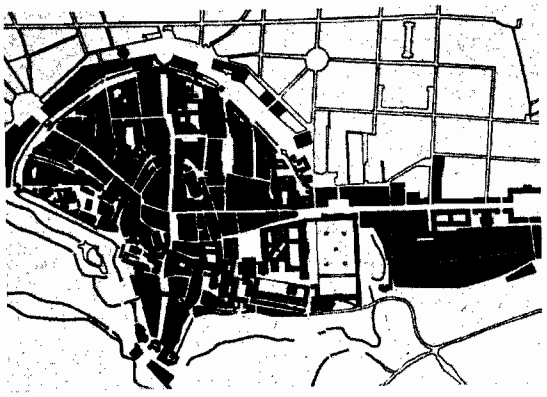

Fig. 4.23 Figure-ground plan of Munich, 1840.
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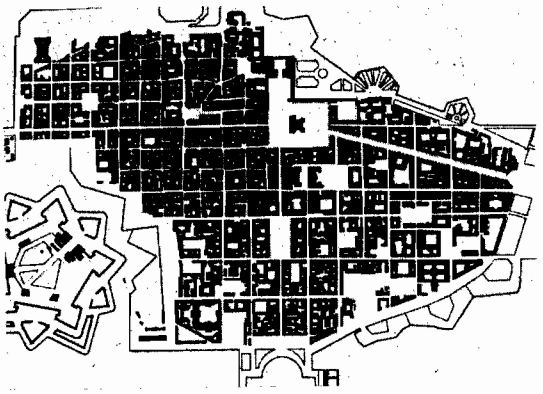

Fig. 4.24 Figure-ground plan of Turin, 1840.
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Fig. 4.25 Nolli plan of Rome, 1748

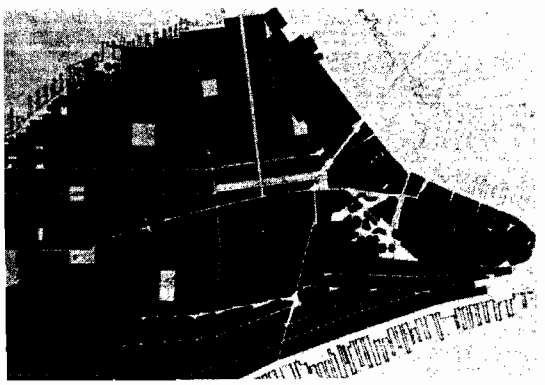

Fig. 4.26 Figure-ground plan of New York, 1930.
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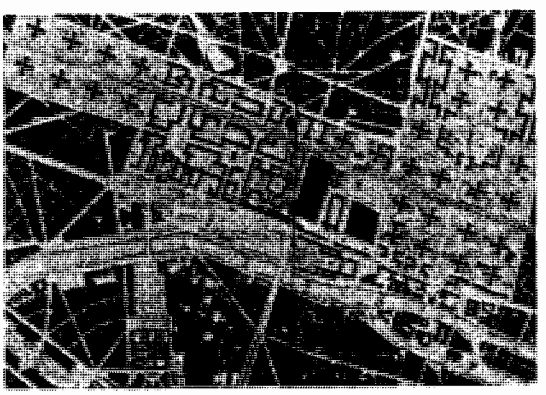

Fig. 4.27 Le Corbusier's Plan Voisin for Paris, 1925.
Figure-ground plan shows existing and proposed city.

experience of cities without serious challenge for twenty-five hundred years. I am not claiming that this system is somehow a generalized, ahistorical structure of perceptual experience. Rather, I suggest that it is a structure of signification maintained over a very long period of time by professional education and practice in architecture, one with a history of use and value (especially as reinterpreted in early modern Europe) prevailing in the institution of architecture until twentieth-century modernists advanced a radically alternative conception. In the following discussion, therefore, the cities of Ouro Preto and Brasília serve as representative examples, and their comparison as a contextualized instance, of a more global antagonism between opposing conceptions and representations of urban order.

Most important for our purposes, the striking inversions of the modernist and preindustrial figure-ground plans suggest a way of studying the transformation of city and society in terms of the order architecture creates. They suggest that this perceptual order is also an ordering of social relations and practices in the city. As such, architecture constitutes a system of conventions that may be used to stand for something else. What it stands for can only be determined through an ethnographic and historical study of how it is used.

4.3 The Street in Ouro Preto: Private Property and Public Display

During the eighteenth century, the city of Ouro Preto emerged as a center of fabulous gold wealth 600 miles inland from Rio de Janeiro (figs. 4.3, 4.28–4.31). As a result of its riches, it became the capital of Brazil's mining economy in the present-day states of Minas Gerais, Bahia, Goiás, and Mato Grosso. The settlement of the city parallels the growth and decline of its gold production.[14] In 1700, pioneers from São Paulo established a mining camp called Vila Rica de Ouro Preto, 'The Rich Town of Black Gold'. By 1750, the population reached its peak of 95,000 inhabitants, 25,000 of whom lived in the city center and 70,000 in the immediately surrounding *comarca*, 'county'. Slave labor powered the mining economy. In 1796 there were 5.2 nonwhite inhabitants for every white, a ratio giving a rough idea of the master-slave coefficient in the economy. Its major social groups consisted of entrepreneurs with large-scale mining operations, city officials representing the Portuguese Crown, wildcat prospectors and merchants, indentured servants, and slaves.

According to Furtado (1971: 79–82), the Brazilian mining economy afforded people of limited means unusual prospects for wealth and status because it was not an economy based on large mines, but rather on the less capital intensive system of alluvial panning. It was a lucrative situation for all, including the slaves, many of whom managed to work for their own account. As a result, migrants flocked to the new Eldorado. At mid-eighteenth century, gold production and population peaked. Gold output reached 1,770 kilos of refined ore. By 1777, however, production was down to 1,050 kilos, by 1811 to 360 kilos and by 1820 to a mere 120 kilos. From the mid-century high of 95,000 inhabitants, the population declined drastically to 8,000 by 1816, at which level it remained for the next hundred years. With Ouro Preto's mines exhausted, the inhabitants regressed into subsistence agriculture or simply abandoned the city for other promised lands, leaving behind a gold-plated testament to mercantile enterprise.

In its glory, the city displayed its riches in classic fashion: through grand architecture. By the end of the eighteenth century, thirteen major churches, a palatial city hall, state capital, and treasury had been constructed in a blaze of public building projects that—considering the size and isolation of Ouro Preto—rival those of Periclean Athens in conspicuous consumption of vast resources, liturgical splendor, and elaborate celebration of civic accomplishments. Yet, for all its monumental opulence and political prominence, Ouro Preto was also a residential and working city for all classes of inhabitants. How, then, were these two elements of the urban order, the public and the private, architecturally related?

If, in a most general sense, political discourse is about such things as private gain and public good, how does the urban order represent the relationship between the public and the private in a city dominated by the politics of capital accumulation? A detailed analysis of this urban order would have to relate its architectural evolution to the various phases of capital accumulation and consolidation of power: from the collective settlement of a pioneer camp, to the main-street free-for-all of many individual competitors, to the grandiloquent public display of political and financial elites. I shall focus on this final grandiloquent phase of Ouro Preto's development to consider the following question. In Ouro Preto, as in most occidental cities, the private accumulation of wealth is paramount in defining both the physical and the political structure of the city. In what specifically *architectural* ways is private property the source of public order in such a city, and in what ways is wealth represented as civic display in public buildings and monuments?

In cities such as Ouro Preto the solid mass of buildings constitutes the perceptual ground in contrast to which the voids of streets and squares emerge as figures (figs. 4.28 and 4.33). As most private activity occurs inside buildings and most (but not all) public activity occurs in streets and squares, the figure-ground conventions of the street provide a means of distinguishing the two domains. In such cities, the experience of a figural void predictably signals that one is in the public domain, in a street or square; this in turn cues certain kinds of behavioral expectations (figs. 4.28 and 4.31). Similarly, when perceiving an anonymous ribbon of street façades, one knows that these are private properties, unless otherwise informed by a flag or a signboard, for example. The public and private domains are thus distinguished by a simple and legible architectural convention:

solid = ground = private

void = figure = public

But, of course, not all buildings are private. How then are public buildings and monuments recognized in terms of this convention? The semantic solution is remarkably simple: the opposition between figure and ground is reversed to signal buildings that are in fact public. These buildings (churches, government institutions, museums, monuments, and the like) are designed not as continuous ground but as sculptural figures (figs. 4.29 and 4.30). They are broken away from the context of private buildings (the solid fabric of the city) through a combination of design strategies. They are generally set in the void of a square or a green that serves as the ground against which they are perceived as monumental figures. Often they are also heavily ornamented, sculpturally massed, and massively scaled. Thus, civic buildings stand out as great public gestures, figures in space, against the surrounding field of more uniform, contiguous, and in this case whitewashed façades. The repetitive forms and massings of these everyday structures constitute the ground out of which monuments to city, nation, God, and private wealth literally arise. The reversal of figure and ground thus provides the architectural means of transforming wealth into public display. In this way, the street code of figure-ground and solid-void conventions systematically relates civic architecture and the architecture of everyday life. In doing so, it presents an extremely simple and legible ordering of the public and private domains.

We can summarize the fundamental architectural structure of public display and private property in Ouro Preto as follows.

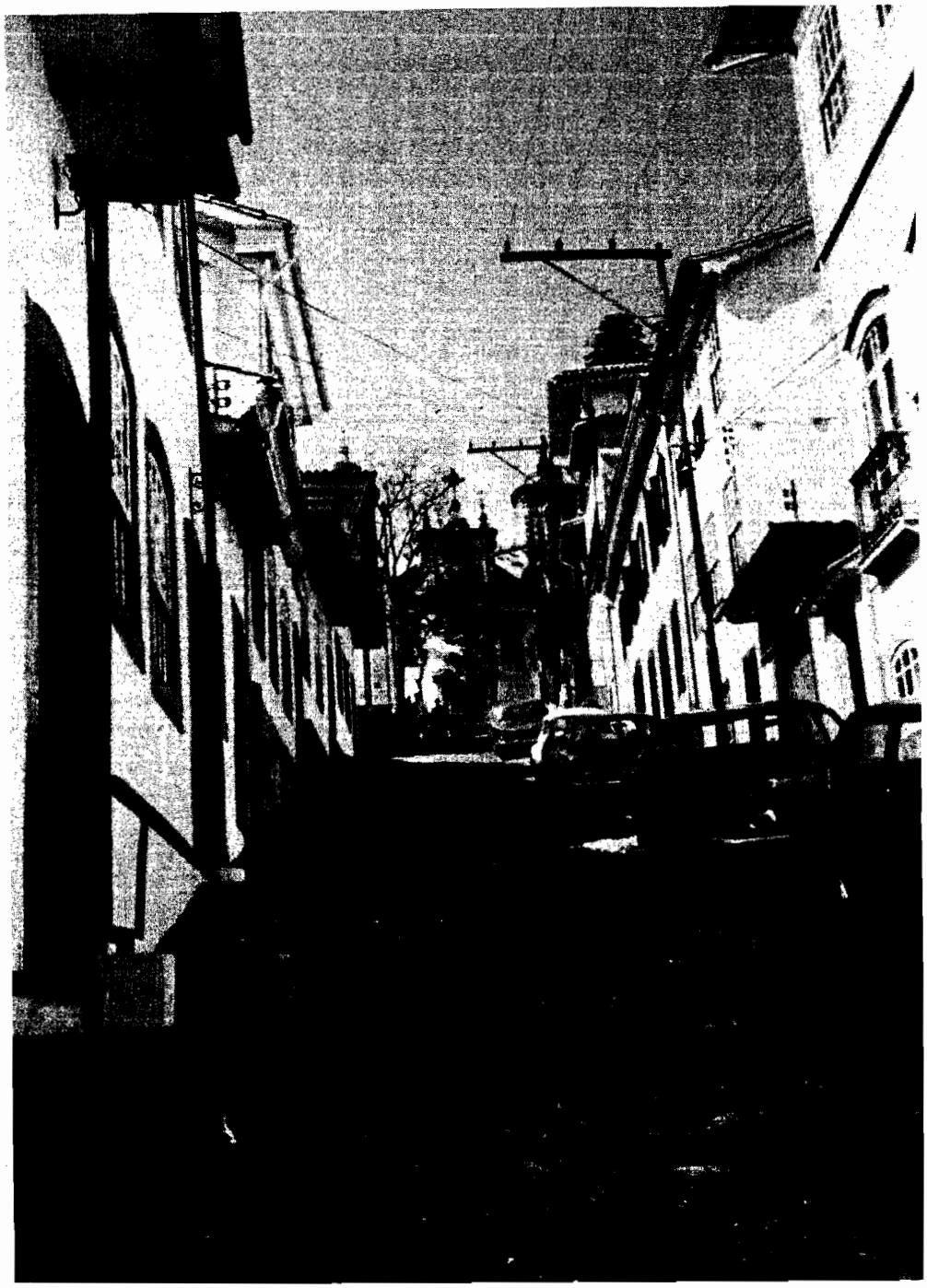

Fig. 4.28 Rua Coronel Alves, looking toward the Igreja de Nossa Senhora do Carmo (see figs. 4.29 and 4.30), Ouro Preto, 1980. The street and church are shown in plan in the lower left of figure 4.33.

Fig. 4.29 West elevation of the Igreja de Nossa Senhora do Carmo, Ouro Preto, 1980

Fig. 4.30 West and north elevations of the Igreja de Nossa Senhora do Carmo, Ouro Preto, 1980

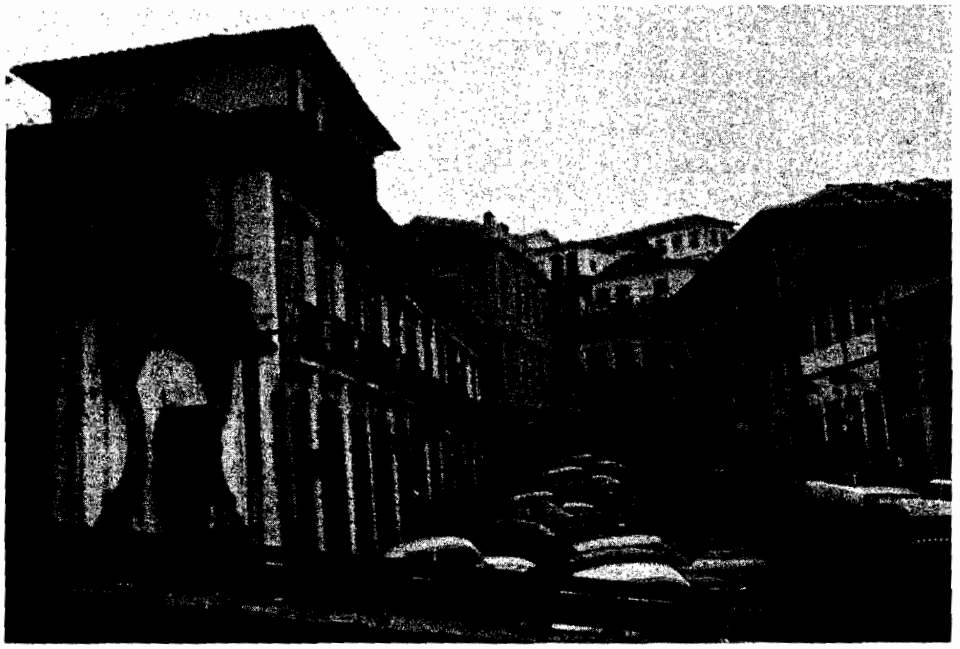

Fig. 4.31 Rua Tiradentes, Ouro Preto, 1980

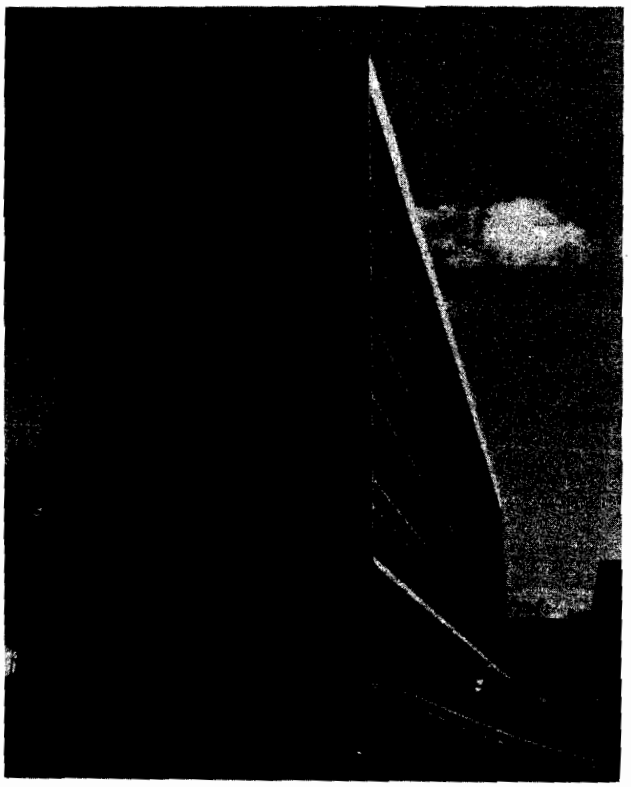

Fig. 4.32 *Superquadra* apartment block, SQS 108–Block E, Brasília, 1980

In this preindustrial baroque city, both space and building are reversibly both figure and ground. Although space is consistently figure and building ground, these relations are easily reversed to signify public monuments and civic institutions. This reversal of figure and ground is the key rhetorical principle of the architectural discourse—literally a "running back and forth," as the etymology of the word *discourse* suggests—between the public and the private. The ambi-valence of the system loads each element of the figure-ground convention with alternating values:

solid = ground = private
void = figure = public

4.4 The Modernist Inversion

Modernism breaks decisively with this traditional system of architectural signification. Whereas the preindustrial baroque city provides an order of public and private values by juxtaposing architectural conventions of repetition and exception, the modernist city is conceived of as the antithesis both of this mode of representation and of its represented political order. By asserting the primacy of open space, volumetric clarity, pure form, and geometric abstraction, modernism not only initiates a new vocabulary of form, more radically it inverts the entire mode of perceiving architecture. Recognition, the activity of perceiving meanings and relationships, is turned inside out—as if the figural solids of the modernist city had been produced in the mold of the figural voids of preindustrial urbanism (compare figs. 4.31 and 4.32).

Basic to modernism's doctrine of salvation is the elimination of the figural street. This it condemns as the bastion of a corrupt civic order of stagnant public and private values, imposed on the city through an architecture of antiquarian monuments, chaotic streets, decadent ornament, and unsanitary dwellings. Modern architecture eliminates the corridor street by inverting the baroque planning convention of figure and ground and by rupturing its discourse of reversals. A comparison of the figure-ground plans of Ouro Preto and Brasília reveals this inversion clearly (figs. 4.33–4.36). In the modernist city, vast areas of continuous space *without exception* form the perceptual ground against which the solids of buildings emerge as sculptural figures. There is no relief from this absolute division of architectural labor: space is always treated as continuous and never

Fig. 4.33 City center, Ouro Preto, 1980. The figure-ground plan of Ouro Preto and the plans of different sectors of Brasília (figs. 4.34–4.36) show approximately the same area (470m × 710m) in the same scale (1:8000).

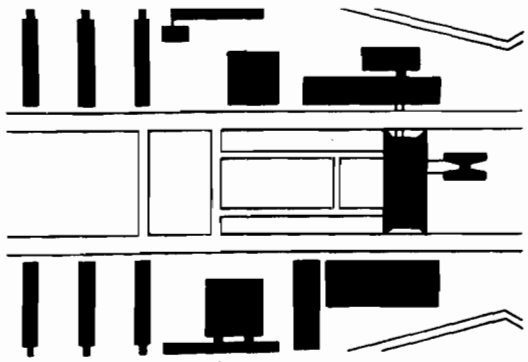

Fig. 4.34 Monumental Axis, Brasília, 1981

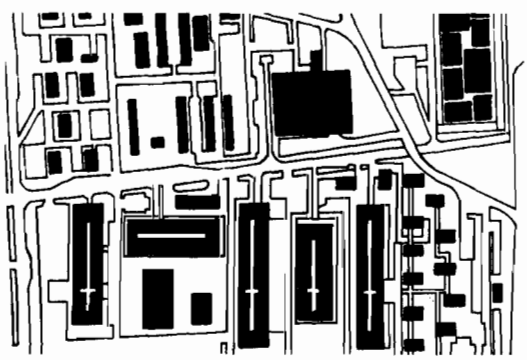

Fig. 4.35 Commercial Sector South, Brasília, 1981

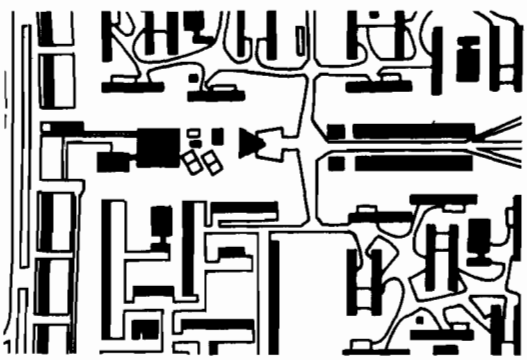

Fig. 4.36 Residential Axis South, Brasília, c. 1960

as figural; buildings always as sculptural and never as background. In the modernist inversion of the figure-ground convention

solid = figure (never ground)

void = ground (never figure)

The consequences of this inversion are profound. It eliminates the reversals of the traditional code by insisting on the immutability of the terms: by establishing the absolute supremacy of continuous nonfigural void, it transforms the ambivalence of baroque planning into a monolithic spatial order. Reversals are now impossible. In effect, it abandons the discourse of reversals in favor of an uncompromising clarity of function. The perceptual structure of the street in Ouro Preto has thus been doubly

inverted in Brasília. On the one hand, the broad avenues of the new city are unsubordinated to any other spatial or volumetric entity. Without architectural containment and without visible destination, they rush past the monumental buildings they isolate in space. On the other hand, as isolated sculpture, *every* building now vies to be recognized as a monument. Each competes for attention, each immortalizes its creator, and each celebrates the "beauty of the speedway" leading people and machines to apparently limitless horizons.

The motivations and consequences of these polemical inversions are essentially of two types. One involves the conventions of architecture, addressing the process of signification itself. The other involves a reevaluation of the social and political values signified. Modern architecture institutes its distinctive mode of recognition by refashioning old conventions into new conceptual devices. The success with which modernism breaks with the past in advancing its claims is in large part due to the simplicity of these formal solutions. By inverting the poles of the traditional oppositions between figure and ground, and neutralizing their reversal, it brings a radical unfamiliarity to an architectural code *the terms and values of which we already know.* It retains the terms of the baroque "argument" (i.e., solid, void, figure, ground) but presents them with a different logic so as to bring their established values (i.e., public, private) under new scrutiny. By holding the terms constant but defamiliarizing their relations, the modern code explicitly exposes the process of architectural signification, that is, the process of investing empirical categories (the terms) with significance. In the strange steel-and-glass landscape of the modern city, the inverted figures and displaced voids call attention to themselves as convention. They shock us into an awareness of the process of saying something about something in stone, of inscribing social values in an architectural code. Thus, through inversion, neutralization, and defamiliarization, modern architecture deliberately lays bare its own devices and intentions for restructuring our perception.

Yet, it does more than just unmask convention. Having exposed the process of inscribing social discriminations in architecture, it attempts to efface the inscription and to write a new one in which private property in real estate is no longer a source of public order, and traditional discriminations between the two no longer the focus of architectural comment and convention. If architectural inscription in capitalist cities constitutes a discourse (in the sense of a going back and forth) between "public figures" and "private ground," the modern project is therefore nothing less than the total transformation

of this civic discourse in which the very distinctions between the public and the private disappear.[15]

How is such erasure possible? Modernism's power as a conquering vision results from its ability to translate its objectives for a new institutional order into simple conventions of architectural defamiliarization. These conventions impose a totality of perceptions in which identification of the public and the private cannot be made, and in which—in theory—a way of life based on such discriminations is therefore negated. In large measure, this semantic erasure is a direct and unavoidable consequence of eliminating the figural street through the inversion of the figure-ground convention. In the ideal modern city where *all* buildings are figures, the code of recognizing public institutions as *exceptional* figures in the common ground is rendered irrelevant. Public institutions are reduced, paradoxically, to sculptural anonymity: as sculptural objects in a vast field of sculptural objects, they are indistinguishable. Thus, the efficacious reversals of the traditional code have now become a semantic impossibility. If we know that all buildings are not private, yet cannot distinguish which are public, the old architectural convention for discriminating between the public and the private is effectively invalidated.

4.5 Transforming Civic Discourse: The New Public of Brasília

The modern city that emerges from these transformations is in theory an entirely public city. Its utopian design eliminates private property in real estate as an institutional basis of urban order for both family and civic life. However, as the public is defined in relation to the private, the elimination of the latter does not leave the former unchanged. Therefore, the modernist city features a new kind of public domain. The example of Ouro Preto suggested that the type of urban order whose basic unit is an opposition between public street and private building expresses a type of political order that is grounded in preindustrial capitalist relations between public affairs and private interests. If, in this sense, urban order is a concretization of political order, what kind of public city is the one that eliminates private realty?

In Brasília's Master Plan, the city's architecture and organization constitute an argument for egalitarianism:

> The four-by-four grouping of the superblocks will, while favoring the coexistence of social groups, avoid any undue and undesired stratification of society. And, in any case,

> variations in the standard of living from one superblock to another will be offset [*neutralizadas*, in original] by the organization of the urban scheme itself and will not be of such a nature as to affect that degree of social comfort to which all members of society have a right. (Costa 1957: art. 17)

The egalitarian discourse thus maintains that the architectural conventions themselves ("the four-by-four grouping," "the urban scheme itself," and others developed in the Master Plan) will produce a communitarian political order. The city is to belong "to the people" (a category which originally included ministers of the government and their chauffers living in the same superblock) regardless of socioeconomic differences. As an inscription in space, all of the city's buildings and all of its spaces are to signify the public good. By eliminating market competition and profit from architecture, state-sponsored total design intends that collective and not private enterprise will generate this public good. Where there is to be little profit from city-building and where all construction must be referred to a Master Plan, an inequitable distribution of urban amenities will not occur. Moreover, where all buildings are monuments to this plan, class domination will not be able to mystify itself in the form of individual monuments to profit and privilege which dissimulate the private conquest of the public realm.[16] Instead, the totality of Brasília will be a monument to the collective efforts of master planning and to the state, which sponsors it. Thus, the Master Plan—"the urban scheme itself"—stands behind the new secular order as its motivation and ultimate reference. As the plan speaks through architecture, the city itself becomes the oracle of its egalitarian intentions.

To understand the nature of Brasília's new public, we shall look at what has taken the place of the old street and its public domain. The modernist alternative is the "local commercial sector," intended to provide the same commercial services as the traditionally mixed residential-commercial street and square (examples of which can be seen in figs. 4.1, 4.8, 4.16, and 4.31). We shall consider the initial concept of the commercial sector, its evolution, and, most important, its reception by Brasilienses since the city's inauguration in 1960.

Nowhere in Costa's plan does the word *rua*, 'street', appear. We can, therefore, assume that its absence is deliberate and corresponds to the elimination both of the concept of the street and of the physical fact itself.[17] The Plano Piloto (map 5.2) is organized around the crossing of two "radial arteries": superspeedways called the Residential-Highway Axis and the Monumental Axis. The former encompasses 14 contiguous traffic

lanes. These are divided into center lanes for fast traffic and side lanes for local traffic. The side lanes connect to the residential units on either side through ramps, underpasses, and cloverleaf interchanges. While somewhat less symphonic in traffic flow, the Monumental Axis features 8 lanes, 4 in each direction, separated by the enormous Esplanade of the Ministeries.[18] Neither axis has a single traffic light or stop-and-go intersection, for the objective of this circulatory scheme is the "unimpeded flow of traffic through the central and residential sectors" (Costa 1957: art. 7). That this objective will result from the elimination of streets is a basic contention of the plan: in article three, Costa defines its *idée maîtresse* as the application of "the free principles of highway engineering—*including the elimination of intersections* [i.e., street corners]—to the technique of urban planning" (emphasis added).[19]

On either side of the Residential Axis, Costa (ibid., art. 16) interpolates a ranked series of *vias*, 'ways', today numbered L1 to L5 and W1 to W5, to serve the residential superblocks. The plan calls for *faixas*, 'bands', of community facilities and local commerce, alternately intersecting these service ways, to be developed between the *superquadras*. Each band of commerce, called a "local commercial sector," is reached by a *via de acesso motorizado*, 'motorized access way'—a choice of terms carefully and consistently avoiding any reference to "street."

In fact, Costa's original proposal (art. 16; fig. 4.37) assiduously denies any reference to the old marketplace: store entrances and display windows are to front onto the *superquadras* and not the accessways. Thus, the scheme links commerce and residence by way of the arcadian park of each superblock and not the "dirty, hazardous street." The latter is architecturally segregated and restricted to functions of vehicular supply, access, and parking. With unflappable faith in the power of words and architecture to change the world, the Master Plan transforms the age-old institutions of the marketplace and the market street into a "commercial sector" and a "motorized service way."

The absence of the word *street* in the plan is thus prophetic: it reveals an attempt to dismantle the traditional urban market by reordering relations of commerce and residence, pedestrians and transport. However, it is more than simple lexical proscription which eliminates the market street from Brasília. The street has also been transformed architecturally from a figure carved out of a solid mass into an unbounded throughway. It is no longer recognizable as a figural void in a discourse of figure-ground relations. The serviceways of Brasília can only be perceived as asphalt strips catering to the needs of machines in motion. They bear no relation to the street as a socializing space

for pedestrians. Similarly, the marketplace has been architecturally reconceived as a single building, a sculptural block, which is to say, a figural object in the void—or, in the words of Lúcio Costa (1957: art. 16), "a single body only" set out starkly against the trees on one side and against the service access on the other. This reconceptualization of the commercial street effects a fundamental change in the relationship between urban commerce and residence. For Costa's plan accomplishes a radical functional differentiation of commercial space and thereby of exchange: streets have become entirely identified with the functions of transport and supply; distribution with detached buildings.

Having considered the prehistory of the "street" in Brasília, it is revealing to see how Brasilienses have responded to its elimination. The commercial sector developed in three phases. These correspond to the major division of the city into Asa Sul (South Wing) and Asa Norte (North Wing), the former constructed well before the latter, which still remains incomplete. In the first phase, the commercial sectors of the South Wing were built according to plan (figs. 4.37 and 4.38). However, the antistreet conception of these sectors proved untenable: in defiance of the Master Plan, the residents rejected it. Some planners argue that because the city was unfinished at the time of its inauguration, the total vision could not be implemented, let alone appreciated. However, the true explanation for the plan's failure is perhaps less apocalyptic. The first inhabitants of Brasília's *superquadras* simply rejected the antistreet because it contradicted social practice. Constituting a cross-section of the bureaucracy, these settlers were predominantly from urban Brazil, where the street is the focus of public activity.[20] As people accustomed to the bustle of the street, they quickly grasped and repudiated the radical intentions of the Master Plan. They refused the proposed garden entrances of the commercial units and converted the service backs into store fronts (fig. 4.39). Associated with sidewalks, traffic, and *movimento*, the original backs were perceived as customary areas of exchange and sociality. As a result, habit reproduced the street in practice where it had been architecturally denied.

To this day, the garden sides of most of the commercial units in Asa Sul remain undeveloped (fig. 4.40). The result is what one might call a front-back problem. Reversal has returned but in the form of confusion. Façades obviously designed as fronts are masked by storage crates, locked gates, and general neglect. Although some stores "solve" the problem by constructing two entrances, the one on the "street" always reads as the front door. The reinversion has thus been complete. Although the

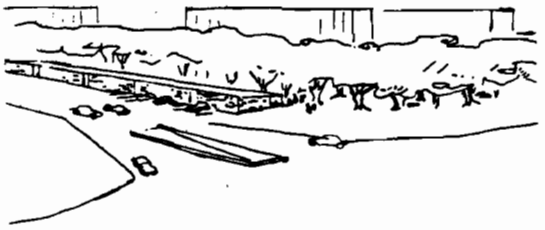

Fig. 4.37 Lúcio Costa's original proposal for a prototypical local commercial sector, from the Master Plan of Brasília, 1957

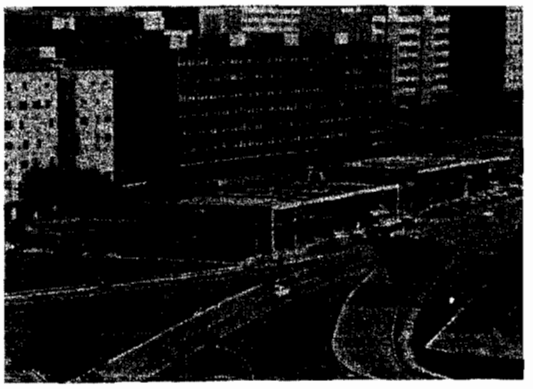

Fig. 4.38 Local Commercial Sector 102 South, Brasília, 1980

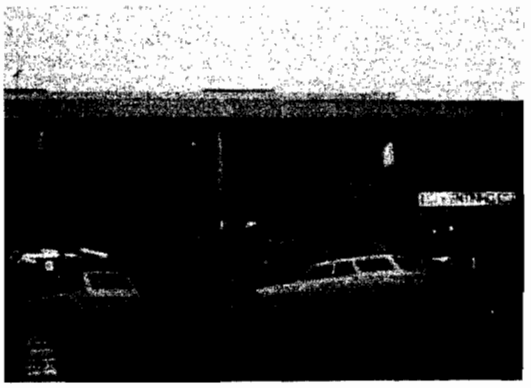

Fig. 4.39 Store "fronts" of Local Commercial Sector 108 South, Brasília, 1980

Fig. 4.40 Store "backs" of Local Commercial Sector 308 South, Brasília, 1980

street itself had been architecturally denied and remains legally proscribed in Brasília (as city ordinances based on the Master Plan establish uniform heights, setbacks, openings, displays, etc.), the inhabitants of Asa Sul resuscitated its semantic code. They put their shops back on the street in contact with curbs and traffic. Not surprisingly, the signs of the popular street reappeared: mixed-up functions (cars and people), uncoordinated signs, colors, and displays, window-shopping, sidewalk socializing, loitering, and even littering. The riot of urban codes reasserted itself in spite of the best attempts yet devised to prevent it.

However, both the extent and the effectiveness of this rebellious revival are limited at best. First and most important, Brasília does not have a genuine system of streets. Therefore, any attempt to recreate one is doomed to relative isolation within the totality—in this case, limited to the older commercial sectors of Asa Sul. Second, officialdom was not pleased with

this turn of events. One administrator claimed that the popular street code reemerged because the central planning agency, Novacap, was unable to effect total control over commercial development (interview, October 1980). He argued that because of an initial lack of financial resources, Novacap could not develop the commercial sectors as coordinated wholes. Instead, it was forced to contract individually. The absence of a "guiding hand" led to uncontrolled development and competition among proprietors, with the resulting street riot of signs and symbols. Faith in "total design" was not easily discouraged, however, and the government resolved to give it a second chance in the construction of Asa Norte.

The design of commercial units in the north appears as an attempt to preclude by architectural and legal means a recurrence of the kind of street behavior that "deformed" the southern units (fig. 4.41). Each local commercial sector is now broken up into separate pavilions standing 30–50 feet apart. Each pavilion is composed as a two-story cubic loggia having two or three shops per side below and offices above. The second story protrudes over the first, creating a perimeter arcade tucked well into the body of the building. Their square plan somewhat resolves the front-back problem of Asa Sul by allowing shops to occupy all sides of the structure. Equilateral symmetry thus solves the problem by turning each side into a front.

In the new solution, however, the pavilions have also been pulled back about 25 feet from the curb and constructed several feet above street grade. One must now traverse a flight of stairs to reach each one. The sidewalk, that traditional ribbon of social exchange, has now been irretrievably severed from the street, broken into discrete lengths, and wrapped around each pavilion as an arcade. While it might be argued that these arcades simply replace the sidewalk with a protected passage, their effects are quite different. On the one hand, protection is actually minimal. On the other, this design precludes the possibility of street life by severing the street from the place of exchange. It eliminates sidewalk contact between the two and considers each separately, demoting the street to the single function of transport and sequestering all commerce into self-contained, detached mini-malls. In the absence of a continuous sidewalk edged with façades, not only is "strolling down the avenue" impossible, but moreover the urban *flâneur* is now confronted with extinction.

Recently, city officials unveiled the "final solution" to neighborhood shopping in the modern city, inaugurating the third phase of local commercial development in Brasília (fig. 4.42). Twenty years late, Local Commercial Sector 205/206 North finally and totally realizes the ultimate projections of the Master

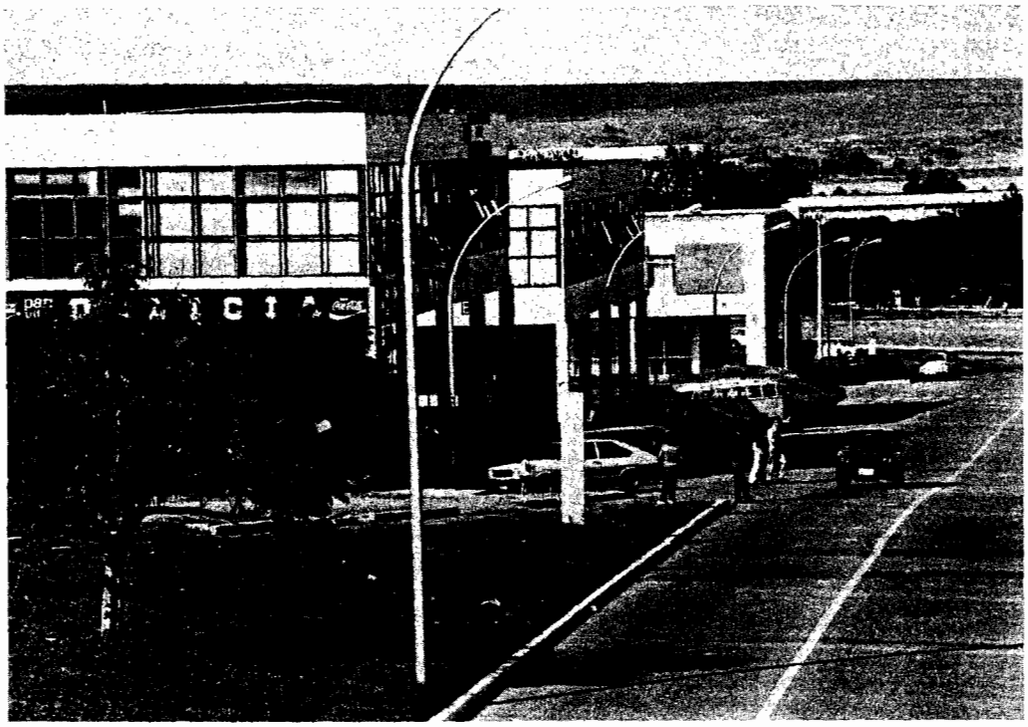

Fig. 4.41 Local Commercial Sector 204 North, Brasília, 1980

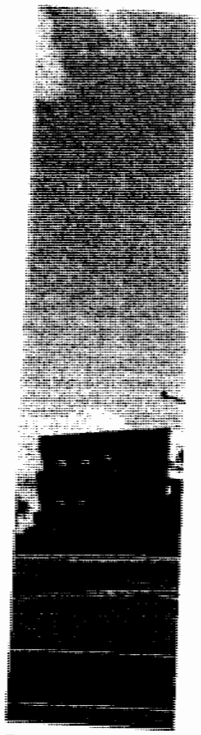

Fig. 4.42 Local Cc

Plan. Conceived as a totality and constructed as a single megastructure, it represents "the way all of Brasília was supposed to have been built" in the words of one city administrator (interview, March 1981). Not surprisingly, the official media presents it as a model of urban development. As the architects and planners of the building explained, it represents a "return to the principles of the Master Plan" (interview, March 1981). It is deliberately designed to pull all shopping activity away from the "street" and "return" it to the sides facing the *superquadras*. No longer conceived as a simple block of stores or even as discrete pavilions, the project engulfs the entire site, on both sides of the road, into one palatial structure.

Locally referred to as Babylonia, 205/206 North is a veritable palace of consumption: a ziggurat *qua* mall complete with arched windows, roof terraces, scissor ramps, labyrintine corridors lined with expensive shops and play areas for the toddlers of Brasília's new elite. As a final solution, it eliminates beyond doubt, recall, or even memory all traces of the traditional shopping street. With its stores internalized into the bowels of the building, the mall's façades appear as high, blank white

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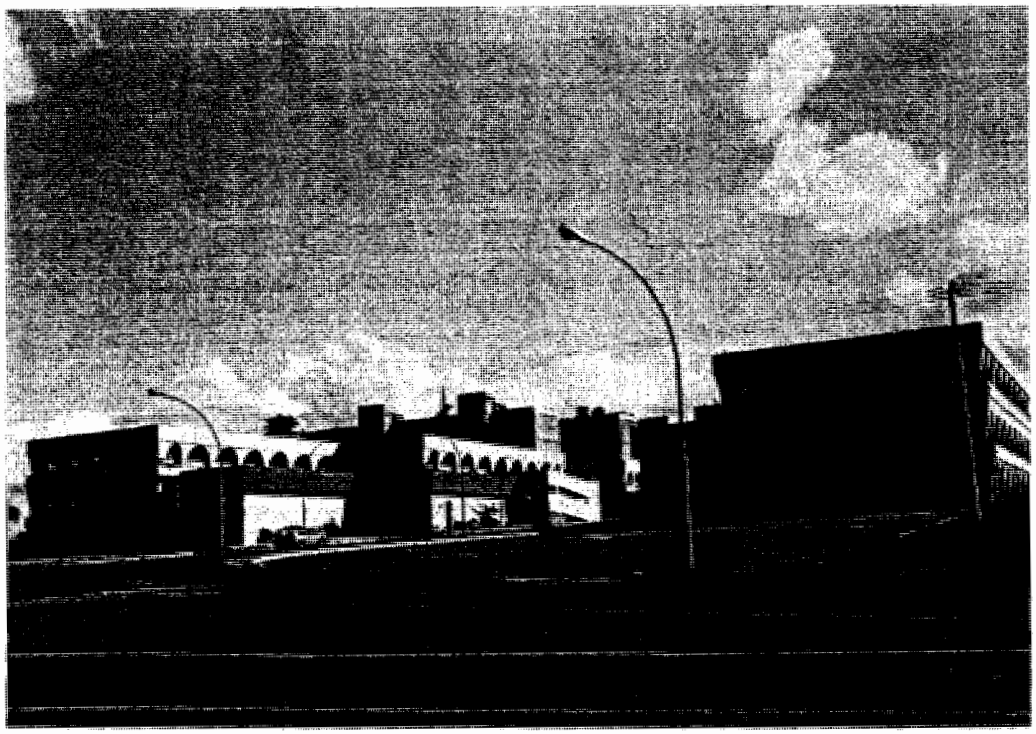

Fig. 4.42 Local Commercial Sector 205/206 North, called Babylonia, Brasília, 1980

walls, above and behind which the arched windows of the internal corridors rise. To let the road pass through it, the structure divides in half, turning the public accessway into a speedway connector. Parking is no longer available along the accessway but is relegated to the sides of the structure. A landscaped mini-lawn replaces the sidewalk, leaving hazardously little space for pedestrians to walk between the building's flanks and the road. Perhaps having realized that there are so few pedestrians in Brasília, architects have simply ceased making traditional gestures to them—like store windows and sidewalks.

As if to confirm the architectural elimination of the street in Brasília, Brasilienses do not use the word *rua* in address terminology. Using the city's impeccably rational address system, they say, for example: *na Comercial 103 Sul*, 'in the Commercial [Sector] 103 South', and *na SQS 407*, 'in Superquadra South 407'. The one exception proves the case: Local Commercial Sector 107/108 South is commonly referred to as the Rua da Igrejinha, 'The Street of the Little Church' (fig. 4.43). It is named after the only recognized landmark in the residential areas of the city, the

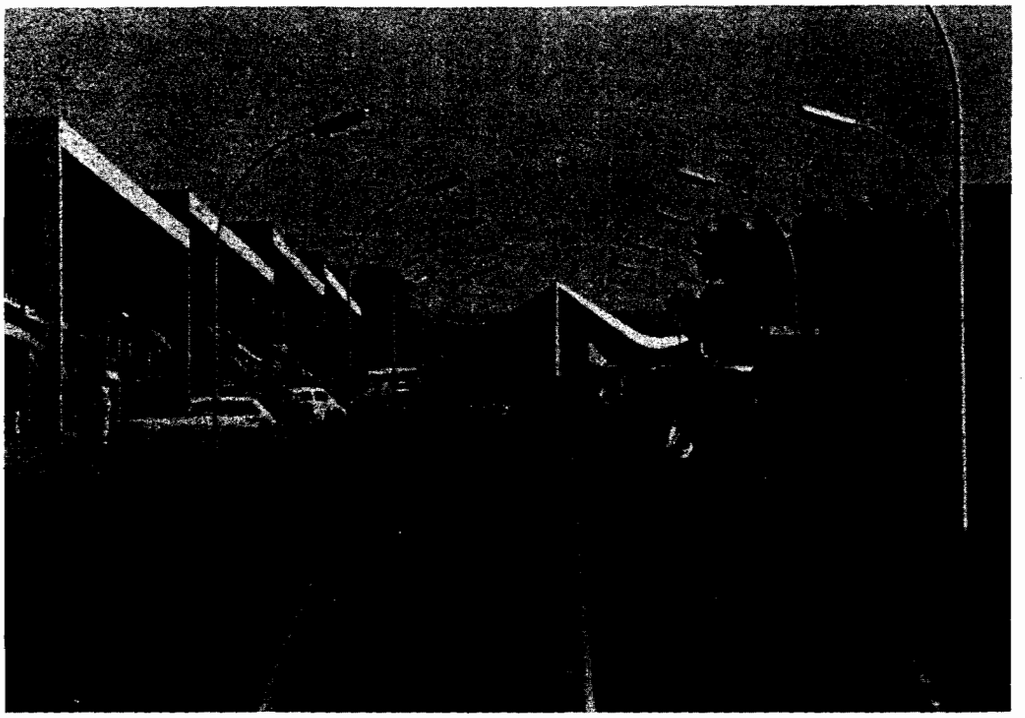

Fig. 4.43 Local Commercial Sector 107/108 South, called the Street of the Little Church, looking toward the Little Church of Fátima, Brasília, 1980. Compare with figure 4.28.

Igrejinha da Fátima, 'The Little Church of Fátima'. Designed by Oscar Niemeyer, it was the first church constructed in the city. Although there are many other churches, two striking Buddhist temples, and other exceptional structures (like mammoth supermarkets) in other commercial sectors, only the Igrejinha is considered enough of a landmark to be immortalized as a street name in the public memory.

The reason for its commemoration is obvious in light of our analysis of the preindustrial street: from the perspective of the shopping sector (as in the illustration), the church is perceived in relation to its context according to the rules of traditional and not modern urbanism. It is in fact the only instance in Brasília of a traditional figure-ground relation between a public monument and a public street. Urbanistically, it follows the model of churches in cities like Ouro Preto (compare figs. 4.43 and 4.28): it crowns the street leading to it as a figural object set in a defined void. Thus, in relation to its commercial sector, the design of the Little Church of Fátima recapitulates the monument-street complex of preindustrial cities, and, for a moment, the public memory of it.