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Seeing Like a State

*How Certain Schemes to
Improve the Human
Condition Have Failed*

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3 Authoritarian High Modernism

Then, as this morning on the dock, again I saw, as if for the first time in my life, the impeccably straight streets, the glistening glass of the pavement, the divine parallelepipeds of the transparent dwellings, the square harmony of the grayish blue rows of Numbers. And it seemed to me that not past generations, but I myself, had won a victory over the old god and the old life.

—Eugene Zamiatin, *We*

Modern science, which displaced and replaced God, removed that obstacle [limits on freedom]. It also created a vacancy: the office of the supreme legislator-cum-manager, of the designer and administrator of the world order, was now horrifyingly empty. It had to be filled or else. . . . The emptiness of the throne was throughout the modern era a standing and tempting invitation to visionaries and adventurers. The dream of an all-embracing order and harmony remained as vivid as ever, and it seemed now closer than ever, more than ever within human reach. It was now up to mortal earthlings to bring it about and to secure its ascendancy.

—Zygmunt Bauman, *Modernity and the Holocaust*

All the state simplifications that we have examined have the character of maps. That is, they are designed to summarize precisely those aspects of a complex world that are of immediate interest to the map-maker and to ignore the rest. To complain that a map lacks nuance and detail makes no sense unless it omits information necessary to its function. A city map that aspired to represent every traffic light, every pothole, every building, and every bush and tree in every park would threaten to become as large and as complex as the city that it depicted.¹ And it certainly would defeat the purpose of mapping, which is to abstract and summarize. A map is an instrument designed for a purpose. We may judge that purpose noble or morally offensive, but the map itself either serves or fails to serve its intended use.

In case after case, however, we have remarked on the apparent power of maps to transform as well as merely to summarize the facts that they portray. This transformative power resides not in the map, of course, but rather in the power possessed by those who deploy the perspective of that particular map.² A private corporation aiming to maximize sustainable timber yields, profit, or production will map its world according to this logic and will use what power it has to ensure that the logic of its map prevails. The state has no monopoly on utilitarian simplifications. What the state does at least aspire to, though, is

a monopoly on the legitimate use of force. That is surely why, from the seventeenth century until now, the most transformative maps have been those invented and applied by the most powerful institution in society: the state.

Until recently, the ability of the state to impose its schemes on society was limited by the state's modest ambitions and its limited capacity. Although utopian aspirations to a finely tuned social control can be traced back to Enlightenment thought and to monastic and military practices, the eighteenth-century European state was still largely a machine for extraction. It is true that state officials, particularly under absolutism, had mapped much more of their kingdoms' populations, land tenures, production, and trade than their predecessors had and that they had become increasingly efficient in pumping revenue, grain, and conscripts from the countryside. But there was more than a little irony in their claim to absolute rule. They lacked the consistent coercive power, the fine-grained administrative grid, or the detailed knowledge that would have permitted them to undertake more intrusive experiments in social engineering. To give their growing ambitions full rein, they required a far greater hubris, a state machinery that was equal to the task, and a society they could master. By the mid-nineteenth century in the West and by the early twentieth century elsewhere, these conditions were being met.

I believe that many of the most tragic episodes of state development in the late nineteenth and twentieth centuries originate in a particularly pernicious combination of three elements. The first is the aspiration to the administrative ordering of nature and society, an aspiration that we have already seen at work in scientific forestry, but one raised to a far more comprehensive and ambitious level. "High modernism" seems an appropriate term for this aspiration.³ As a faith, it was shared by many across a wide spectrum of political ideologies. Its main carriers and exponents were the avant-garde among engineers, planners, technocrats, high-level administrators, architects, scientists, and visionaries. If one were to imagine a pantheon or Hall of Fame of high-modernist figures, it would almost certainly include such names as Henri Comte de Saint-Simon, Le Corbusier, Walther Rathenau, Robert McNamara, Robert Moses, Jean Monnet, the Shah of Iran, David Lilienthal, Vladimir I. Lenin, Leon Trotsky, and Julius Nyerere.⁴ They envisioned a sweeping, rational engineering of all aspects of social life in order to improve the human condition. As a conviction, high modernism was not the exclusive property of any political tendency; it had both right- and left-wing variants, as we shall see. The second element is the unrestrained use of the power of the modern state as an instru-

ment for achieving these designs. The third element is a weakened or prostrate civil society that lacks the capacity to resist these plans. The ideology of high modernism provides, as it were, the desire; the modern state provides the means of acting on that desire; and the incapacitated civil society provides the leveled terrain on which to build (dis)utopias.

We shall return shortly to the premises of high modernism. But here it is important to note that many of the great state-sponsored calamities of the twentieth century have been the work of rulers with grandiose and utopian plans for their society. One can identify a high-modernist utopianism of the right, of which Nazism is surely the diagnostic example.⁵ The massive social engineering under apartheid in South Africa, the modernization plans of the Shah of Iran, villagization in Vietnam, and huge late-colonial development schemes (for example, the Gezira scheme in the Sudan) could be considered under this rubric.⁶ And yet there is no denying that much of the massive, state-enforced social engineering of the twentieth century has been the work of progressive, often revolutionary elites. Why?

The answer, I believe, lies in the fact that it is typically progressives who have come to power with a comprehensive critique of existing society and a popular mandate (at least initially) to transform it. These progressives have wanted to use that power to bring about enormous changes in people's habits, work, living patterns, moral conduct, and worldview.⁷ They have deployed what Václav Havel has called "the armory of holistic social engineering."⁸ Utopian aspirations per se are not dangerous. As Oscar Wilde remarked, "A map of the world which does not include Utopia is not worth even glancing at, for it leaves out the one country at which Humanity is always landing."⁹ Where the utopian vision goes wrong is when it is held by ruling elites with no commitment to democracy or civil rights and who are therefore likely to use unbridled state power for its achievement. Where it goes brutally wrong is when the society subjected to such utopian experiments lacks the capacity to mount a determined resistance.

What is high modernism, then? It is best conceived as a strong (one might even say muscle-bound) version of the beliefs in scientific and technical progress that were associated with industrialization in Western Europe and in North America from roughly 1830 until World War I. At its center was a supreme self-confidence about continued linear progress, the development of scientific and technical knowledge, the expansion of production, the rational design of social order, the growing satisfaction of human needs, and, not least, an increasing control over nature (including human nature) commensurate with scientific

understanding of natural laws.¹⁰ *High* modernism is thus a particularly sweeping vision of how the benefits of technical and scientific progress might be applied—usually through the state—in every field of human activity.¹¹ If, as we have seen, the simplified, utilitarian *descriptions* of state officials had a tendency, through the exercise of state power, to bring the facts into line with their representations, then one might say that the high-modern state began with extensive *prescriptions* for a new society, and it intended to impose them.

It would have been hard not to have been a modernist of some stripe at the end of the nineteenth century in the West. How could one fail to be impressed—even awed—by the vast transformation wrought by science and industry?¹² Anyone who was, say, sixty years old in Manchester, England, would have witnessed in his or her lifetime a revolution in the manufacturing of cotton and wool textiles, the growth of the factory system, the application of steam power and other astounding new mechanical devices to production, remarkable breakthroughs in metallurgy and transportation (especially railroads), and the appearance of cheap mass-produced commodities. Given the stunning advances in chemistry, physics, medicine, math, and engineering, anyone even slightly attentive to the world of science would have almost come to expect a continuing stream of new marvels (such as the internal combustion engine and electricity). The unprecedented transformations of the nineteenth century may have impoverished and marginalized many, but even the victims recognized that something revolutionary was afoot. All this sounds rather naive today, when we are far more sober about the limits and costs of technological progress and have acquired a postmodern skepticism about any totalizing discourse. Still, this new sensibility ignores both the degree to which modernist assumptions prevail in our lives and, especially, the great enthusiasm and revolutionary hubris that were part and parcel of high modernism.

The Discovery of Society

The path from description to prescription was not so much an inadvertent result of a deep psychological tendency as a deliberate move. The point of the Enlightenment view of legal codes was less to mirror the distinctive customs and practices of a people than to create a cultural community by codifying and generalizing the most rational of those customs and suppressing the more obscure and barbaric ones.¹³ Establishing uniform standards of weight and measurement across a kingdom had a greater purpose than just making trade easier; the new

standards were intended both to express and to promote a new cultural unity. Well before the tools existed to make good on this cultural revolution, Enlightenment thinkers such as Condorcet were looking ahead to the day when the tools would be in place. He wrote in 1782: "Those sciences, created almost in our own days, the object of which is man himself, the direct goal of which is the happiness of man, will enjoy a progress no less sure than that of the physical sciences, and this idea so sweet, that our descendants will surpass us in wisdom as in enlightenment, is no longer an illusion. In meditating on the nature of the moral sciences, one cannot help seeing that, as they are based like physical sciences on the observation of fact, they must follow the same method, acquire a language equally exact and precise, attaining the same degree of certainty."¹⁴ The gleam in Condorcet's eye became, by the mid-nineteenth century, an active utopian project. Simplification and rationalization previously applied to forests, weights and measures, taxation, and factories were now applied to the design of society as a whole.¹⁵ Industrial-strength social engineering was born. While factories and forests might be planned by private entrepreneurs, the ambition of engineering whole societies was almost exclusively a project of the nation-state.

This new conception of the state's role represented a fundamental transformation. Before then, the state's activities had been largely confined to those that contributed to the wealth and power of the sovereign, as the example of scientific forestry and cameral science illustrated. The idea that one of the central purposes of the state was the improvement of all the members of society—their health, skills and education, longevity, productivity, morals, and family life—was quite novel.¹⁶ There was, of course, a direct connection between the old conception of the state and this new one. A state that improved its population's skills, vigor, civic morals, and work habits would increase its tax base and field better armies; it was a policy that any enlightened sovereign might pursue. And yet, in the nineteenth century, the welfare of the population came increasingly to be seen, not merely as a means to national strength, but as an end in itself.

One essential precondition of this transformation was the discovery of society as a reified object that was separate from the state and that could be scientifically described. In this respect, the production of statistical knowledge about the population—its age profiles, occupations, fertility, literacy, property ownership, law-abidingness (as demonstrated by crime statistics)—allowed state officials to characterize the population in elaborate new ways, much as scientific forestry permitted the forester to carefully describe the forest. Ian Hack-

ing explains how a suicide or homicide rate, for example, came to be seen as a characteristic of a people, so that one could speak of a "budget" of homicides that would be "spent" each year, like routine debits from an account, although the particular murderers and their victims were unknown.¹⁷ Statistical facts were elaborated into social laws. It was but a small step from a simplified description of society to a design and manipulation of society, with its improvement in mind. If one could reshape nature to design a more suitable forest, why not reshape society to create a more suitable population?

The scope of intervention was potentially endless. Society became an object that the state might manage and transform with a view toward perfecting it. A progressive nation-state would set about engineering its society according to the most advanced technical standards of the new moral sciences. The existing social order, which had been more or less taken by earlier states as a given, reproducing itself under the watchful eye of the state, was for the first time the subject of active management. It was possible to conceive of an artificial, engineered society designed, not by custom and historical accident, but according to conscious, rational, scientific criteria. Every nook and cranny of the social order might be improved upon: personal hygiene, diet, child rearing, housing, posture, recreation, family structure, and, most infamously, the genetic inheritance of the population.¹⁸ The working poor were often the first subjects of scientific social planning.¹⁹ Schemes for improving their daily lives were promulgated by progressive urban and public-health policies and instituted in model factory towns and newly founded welfare agencies. Subpopulations found wanting in ways that were potentially threatening—such as indigents, vagabonds, the mentally ill, and criminals—might be made the objects of the most intensive social engineering.²⁰

The metaphor of gardening, Zygmunt Bauman suggests, captures much of this new spirit. The gardener—perhaps a landscape architect specializing in formal gardens is the most appropriate parallel—takes a natural site and creates an entirely designed space of botanical order. Although the organic character of the flora limits what can be achieved, the gardener has enormous discretion in the overall arrangement and in training, pruning, planting, and weeding out selected plants. As an untended forest is to a long-managed scientific forest, so untended nature is to the garden. The garden is one of man's attempts to impose his own principles of order, utility, and beauty on nature.²¹ What grows in the garden is always a small, consciously selected sample of what *might* be grown there. Similarly, social engineers consciously set out to design and maintain a more perfect social order. An Enlightenment belief in

the self-improvement of man became, by degrees, a belief in the perfectibility of social order.

One of the great paradoxes of social engineering is that it seems at odds with the experience of modernity generally. Trying to jell a social world, the most striking characteristic of which appears to be flux, seems rather like trying to manage a whirlwind. Marx was hardly alone in claiming that the "constant revolutionizing of production, uninterrupted disturbance of all social relations, everlasting uncertainty and agitation, distinguish the bourgeois epoch from all earlier times."²² The experience of modernity (in literature, art, industry, transportation, and popular culture) was, above all, the experience of disorienting speed, movement, and change, which self-proclaimed modernists found exhilarating and liberating.²³ Perhaps the most charitable way of resolving this paradox is to imagine that what these designers of society had in mind was roughly what designers of locomotives had in mind with "streamlining." Rather than arresting social change, they hoped to design a shape to social life that would minimize the friction of progress. The difficulty with this resolution is that state social engineering was inherently authoritarian. In place of multiple sources of invention and change, there was a single planning authority; in place of the plasticity and autonomy of existing social life, there was a fixed social order in which positions were designated. The tendency toward various forms of "social taxidermy" was unavoidable.

The Radical Authority of High Modernism

The real thing is that this time we're going to get science applied to social problems and backed by the whole force of the state, just as war has been backed by the whole force of the state in the past.

—C. S. Lewis, *That Hideous Strength*

The troubling features of high modernism derive, for the most part, from its claim to speak about the improvement of the human condition with the authority of scientific knowledge and its tendency to disallow other competing sources of judgment.

First and foremost, high modernism implies a truly radical break with history and tradition. Insofar as rational thought and scientific laws could provide a single answer to every empirical question, nothing ought to be taken for granted. All human habits and practices that were inherited and hence not based on scientific reasoning—from the structure of the family and patterns of residence to moral values and forms of production—would have to be reexamined and redesigned. The structures of the past were typically the products of myth, super-

stitution, and religious prejudice. It followed that scientifically designed schemes for production and social life would be superior to received tradition.

The sources of this view are deeply authoritarian. If a planned social order is better than the accidental, irrational deposit of historical practice, two conclusions follow. Only those who have the scientific knowledge to discern and create this superior social order are fit to rule in the new age. Further, those who through retrograde ignorance refuse to yield to the scientific plan need to be educated to its benefits or else swept aside. Strong versions of high modernism, such as those held by Lenin and Le Corbusier, cultivated an Olympian ruthlessness toward the subjects of their interventions. At its most radical, high modernism imagined wiping the slate utterly clean and beginning from zero.²⁴

High-modernist ideology thus tends to devalue or banish politics. Political interests can only frustrate the social solutions devised by specialists with scientific tools adequate to their analysis. As individuals, high modernists might well hold democratic views about popular sovereignty or classical liberal views about the inviolability of a private sphere that restrained them, but such convictions are external to, and often at war with, their high-modernist convictions.

Although high modernists came to imagine the refashioning of social habits and of human nature itself, they began with a nearly limitless ambition to transform nature to suit man's purposes—an ambition that remained central to their faith. How completely the utopian possibilities gripped intellectuals of almost every political persuasion is captured in the paean to technical progress of the *Communist Manifesto*, where Marx and Engels write of the "subjection of nature's forces to man, machinery, and the application of chemistry to agriculture and industry, steam navigation, railways, electric telegraphs, clearing of whole continents for cultivation, canalization of rivers, whole populations conjured out of the ground."²⁵ In fact, this promise, made plausible by capitalist development, was for Marx the point of departure for socialism, which would place the fruits of capitalism at the service of the working class for the first time. The intellectual air in the late nineteenth century was filled with proposals for such vast engineering projects as the Suez Canal, which was completed in 1869 with enormous consequences for trade between Asia and Europe. The pages of *Le globe*, the organ of utopian socialists of Saint-Simon's persuasion, featured an endless stream of discussions about massive projects: the construction of Panama Canal, the development of the United States far-reaching schemes for energy and transportation. This belief that it

was man's destiny to tame nature to suit his interests and preserve his safety is perhaps the keystone of high modernism, partly because the success of so many grand ventures was already manifest.²⁶

Once again the authoritarian and statist implications of this vision are clear. The very scale of such projects meant that, with few exceptions (such as the early canals), they demanded large infusions of monies raised through taxes or credit. Even if one could imagine them being financed privately in a capitalist economy, they typically required a vast public authority empowered to condemn private property, relocate people against their will, guarantee the loans or bonds required, and coordinate the work of the many state agencies involved. In a statist society, be it Louis Napoleon's France or Lenin's Soviet Union, such power was already built into the political system. In a nonstatist society, such tasks have required new public authorities or "super-agencies" having quasi-governmental powers for sending men to the moon or for constructing dams, irrigation works, highways, and public transportation systems.

The temporal emphasis of high modernism is almost exclusively on the future. Although any ideology with a large altar dedicated to progress is bound to privilege the future, high modernism carries this to great lengths. The past is an impediment, a history that must be transcended; the present is the platform for launching plans for a better future. A key characteristic of discourses of high modernism and of the public pronouncements of those states that have embraced it is a heavy reliance on visual images of heroic progress toward a totally transformed future.²⁷ The strategic choice of the future is freighted with consequences. To the degree that the future is known and achievable—a belief that the faith in progress encourages—the less future benefits are discounted for uncertainty. The practical effect is to convince most high modernists that the certainty of a better future justifies the many short-term sacrifices required to get there.²⁸ The ubiquity of five-year plans in socialist states is an example of that conviction. Progress is objectified by a series of preconceived goals—largely material and quantifiable—which are to be achieved through savings, labor, and investments in the interim. There may, of course, be no alternative to planning, especially when the urgency of a single goal, such as winning a war, seems to require the subordination of every other goal. The immanent logic of such an exercise, however, implies a degree of certainty about the future, about means-ends calculations, and about the meaning of human welfare that is truly heroic. That such plans have often had to be adjusted or abandoned is an indication of just how heroic are the assumptions behind them.

In this reading, high modernism ought to appeal greatly to the classes and strata who have most to gain—in status, power, and wealth—from its worldview. And indeed it is the ideology par excellence of the bureaucratic intelligentsia, technicians, planners, and engineers.²⁹ The position accorded to them is not just one of rule and privilege but also one of responsibility for the great works of nation building and social transformation. Where this intelligentsia conceives of its mission as the dragging of a technically backward, unschooled, subsistence-oriented population into the twentieth century, its self-assigned cultural role as educator of its people becomes doubly grandiose. Having a historic mission of such breadth may provide a ruling intelligentsia with high morale, solidarity, and the willingness to make (and impose) sacrifices. This vision of a great future is often in sharp contrast to the disorder, misery, and unseemly scramble for petty advantage that the elites very likely see in their daily foreground. One might in fact speculate that the more intractable and resistant the real world faced by the planner, the greater the need for utopian plans to fill, as it were, the void that would otherwise invite despair. The elites who elaborate such plans implicitly represent themselves as exemplars of the learning and progressive views to which their compatriots might aspire. Given the ideological advantages of high modernism as a discourse, it is hardly surprising that so many postcolonial elites have marched under its banner.³⁰

Aided by hindsight as it is, this unsympathetic account of high-modernist audacity is, in one important respect, grossly unfair. If we put the development of high-modernist beliefs in their historical context, if we ask who the enemies of high modernism actually were, a far more sympathetic picture emerges. Doctors and public-health engineers who did possess new knowledge that could save millions of lives were often thwarted by popular prejudices and entrenched political interests. Urban planners who could in fact redesign urban housing to be cheaper, more healthful, and more convenient were blocked by real-estate interests and existing tastes. Inventors and engineers who had devised revolutionary new modes of power and transportation faced opposition from industrialists and laborers whose profits and jobs the new technology would almost certainly displace.

For nineteenth-century high modernists, the scientific domination of nature (including human nature) was emancipatory. It "promised freedom from scarcity, want and the arbitrariness of natural calamity," David Harvey observes. "The development of rational forms of social organization and rational modes of thought promised liberation from the irrationalities of myth, religion, superstition, release from the arbi-

trary use of power as well as from the dark side of our human natures."³¹ Before we turn to later versions of high modernism, we should recall two important facts about their nineteenth-century forebears: first, that virtually every high-modernist intervention was undertaken in the name of and with the support of citizens seeking help and protection, and, second, that we are all beneficiaries, in countless ways, of these various high-modernist schemes.

Twentieth-Century High Modernism

The idea of a root-and-branch, rational engineering of entire social orders in creating realizable utopias is a largely twentieth-century phenomenon. And a range of historical soils have seemed particularly favorable for the flourishing of high-modernist ideology. Those soils include crises of state power, such as wars and economic depressions, and circumstances in which a state's capacity for relatively unimpeded planning is greatly enhanced, such as the revolutionary conquest of power and colonial rule.

The industrial warfare of the twentieth century has required unprecedented steps toward the total mobilization of the society and the economy.³² Even quite liberal societies like the United States and Britain became, in the context of war mobilization, directly administered societies. The worldwide depression of the 1930s similarly propelled liberal states into extensive experiments in social and economic planning in an effort to relieve economic distress and to retain popular legitimacy. In the cases of war and depression, the rush toward an administered society has an aspect of *force majeure* to it. The postwar rebuilding of a war-torn nation may well fall in the same category.

Revolution and colonialism, however, are hospitable to high modernism for different reasons. A revolutionary regime and a colonial regime each disposes of an unusual degree of power. The revolutionary state has defeated the ancien régime, often has its partisans' mandate to remake the society after its image, and faces a prostrate civil society whose capacity for active resistance is limited.³³ The millennial expectations commonly associated with revolutionary movements give further impetus to high-modernist ambitions. Colonial regimes, particularly late colonial regimes, have often been sites of extensive experiments in social engineering.³⁴ An ideology of "welfare colonialism" combined with the authoritarian power inherent in colonial rule have encouraged ambitious schemes to remake native societies.

If one were required to pinpoint the "birth" of twentieth-century high modernism, specifying a particular time, place, and individual—

in what is admittedly a rather arbitrary exercise, given high modernism's many intellectual wellsprings—a strong case can be made for German mobilization during World War I and the figure most closely associated with it, Walther Rathenau. German economic mobilization was the technocratic wonder of the war. That Germany kept its armies in the field and adequately supplied long after most observers had predicted its collapse was largely due to Rathenau's planning.³⁵ An industrial engineer and head of the great electrical firm A.E.G. (Allgemeine Elektrizitäts-Gesellschaft), which had been founded by his father, Rathenau was placed in charge of the Office of War Raw Materials (Kriegsrohstoffabteilung).³⁶ He realized that the planned rationing of raw materials and transport was the key to sustaining the war effort. Inventing a planned economy step by step, as it were, Germany achieved feats—in industrial production, munitions and armament supply, transportation and traffic control, price controls, and civilian rationing—that had never before been attempted. The scope of planning and coordination necessitated an unprecedented mobilization of conscripts, soldiers, and war-related industrial labor. Such mobilization fostered the idea of creating "administered mass organizations" that would encompass the entire society.³⁷

Rathenau's faith in pervasive planning and in rationalizing production had deep roots in the intellectual connection being forged between the physical laws of thermodynamics on one hand and the new applied sciences of work on the other. For many specialists, a narrow and materialist "productivism" treated human labor as a mechanical system which could be decomposed into energy transfers, motion, and the physics of work. The simplification of labor into isolated problems of mechanical efficiencies led directly to the aspiration for a scientific control of the entire labor process. Late nineteenth-century materialism, as Anson Rabinbach emphasizes, had an equivalence between technology and physiology at its metaphysical core.³⁸

This productivism had at least two distinct lineages, one of them North American and the other European. An American contribution came from the influential work of Frederick Taylor, whose minute decomposition of factory labor into isolable, precise, repetitive motions had begun to revolutionize the organization of factory work.³⁹ For the factory manager or engineer, the newly invented assembly lines permitted the use of unskilled labor and control over not only the pace of production but the whole labor process. The European tradition of "energetics," which focused on questions of motion, fatigue, measured rest, rational hygiene, and nutrition, also treated the worker notionally as a machine, albeit a machine that must be well fed and kept in good

working order. In place of workers, there was an abstract, standardized worker with uniform physical capacities and needs. Seen initially as a way of increasing wartime efficiency at the front and in industry, the Kaiser Wilhelm Institut für Arbeitsphysiologie, like Taylorism, was based on a scheme to rationalize the body.⁴⁰

What is most remarkable about both traditions is, once again, how widely they were believed by educated elites who were otherwise poles apart politically. "Taylorism and technocracy were the watchwords of a three-pronged idealism: the elimination of economic and social crisis, the expansion of productivity through science, and the reenchantment of technology. The vision of society in which social conflict was eliminated in favor of technological and scientific imperatives could embrace liberal, socialist, authoritarian, and even communist and fascist solutions. Productivism, in short, was politically promiscuous."⁴¹

The appeal of one or another form of productivism across much of the right and center of the political spectrum was largely due to its promise as a technological "fix" for class struggle. If, as its advocates claimed, it could vastly increase worker output, then the politics of redistribution could be replaced by class collaboration, in which both profits and wages could grow at once. For much of the left, productivism promised the replacement of the capitalist by the engineer or by the state expert or official. It also proposed a single optimum solution, or "best practice," for any problem in the organization of work. The logical outcome was some form of slide-rule authoritarianism in the interest, presumably, of all.⁴²

A combination of Rathenau's broad training in philosophy and economics, his wartime experience with planning, and the social conclusions that he thought were inherent in the precision, reach, and transforming potential of electric power allowed him to draw the broadest lessons for social organization. In the war, private industry had given way to a kind of state socialism; "gigantic industrial enterprises had transcended their ostensibly private owners and all the laws of property."⁴³ The decisions required had nothing to do with ideology; they were driven by purely technical and economic necessities. The rule of specialists and the new technological possibilities, particularly huge electric power grids, made possible a new social-industrial order that was both centralized and locally autonomous. During the time when war made necessary a coalition among industrial firms, technocrats, and the state, Rathenau discerned the shape of a progressive peacetime society. Inasmuch as the technical and economic requirements for reconstruction were obvious and required the same sort of collaboration in all countries, Rathenau's rationalist faith in planning had an

internationalist flavor. He characterized the modern era as a "new machine order . . . [and] a consolidation of the world into an unconscious association of constraint, into an uninterrupted community of production and harmony."⁴⁴

The world war was the high-water mark for the political influence of engineers and planners. Having seen what could be accomplished in extremis, they imagined what they could achieve if the identical energy and planning were devoted to popular welfare rather than mass destruction. Together with many political leaders, industrialists, labor leaders, and prominent intellectuals (such as Philip Gibbs in England, Ernst Jünger in Germany, and Gustave Le Bon in France), they concluded that only a renewed and comprehensive dedication to technical innovation and the planning it made possible could rebuild the European economies and bring social peace.⁴⁵

Lenin himself was deeply impressed by the achievements of German industrial mobilization and believed that it had shown how production might be socialized. Just as Lenin believed that Marx had discovered immutable social laws akin to Darwin's laws of evolution, so he believed that the new technologies of mass production were scientific laws and not social constructions. Barely a month before the October 1917 revolution, he wrote that the war had "accelerated the development of capitalism to such a tremendous degree, converting monopoly capitalism into *state-monopoly capitalism*, that *neither* the proletariat *nor* the revolutionary petty-bourgeois democrats *can* keep within the limits of capitalism."⁴⁶ He and his economic advisers drew directly on the work of Rathenau and Mollendorf in their plans for the Soviet economy. The German war economy was for Lenin "the ultimate in modern, large-scale capitalist techniques, planning and organization"; he took it to be the prototype of a socialized economy.⁴⁷ Presumably, if the state in question were in the hands of representatives of the working class, the basis of a socialist system would exist. Lenin's vision of the future looked much like Rathenau's, providing, of course, we ignore the not so small matter of a revolutionary seizure of power.

Lenin was not slow to appreciate how Taylorism on the factory floor offered advantages for the socialist control of production. Although he had earlier denounced such techniques, calling them the "scientific extortion of sweat," by the time of the revolution he had become an enthusiastic advocate of systematic control as practiced in Germany. He extolled "the principle of discipline, organization, and harmonious cooperation based upon the most modern, mechanized industry, the most rigid system of accountability and control."⁴⁸

The Taylor system, the last word of capitalism in this respect, like all capitalist progress, is a combination of the subtle brutality of bourgeois exploitation and a number of its great scientific achievements in the fields of analysing mechanical motions during work, the elimination of superfluous and awkward motions, the working out of correct methods of work, the introduction of the best system of accounting and control, etc. The Soviet Republic must at all costs adopt all that is valuable in the achievements of science and technology in this field. . . . We must organize in Russia the study and teaching of the Taylor system and systematically try it out and adapt it to our purposes.⁴⁹

By 1918, with production falling, he was calling for rigid work norms and, if necessary, the reintroduction of hated piecework. The first All-Russian Congress for Initiatives in Scientific Management was convened in 1921 and featured disputes between advocates of Taylorism and those of energetics (also called ergonomics). At least twenty institutes and as many journals were by then devoted to scientific management in the Soviet Union. A command economy at the macrolevel and Taylorist principles of central coordination at the microlevel of the factory floor provided an attractive and symbiotic package for an authoritarian, high-modernist revolutionary like Lenin.

Despite the authoritarian temptations of twentieth-century high modernism, they have often been resisted. The reasons are not only complex; they are different from case to case. While it is not my intention to examine in detail all the potential obstacles to high-modernist planning, the particular barrier posed by liberal democratic ideas and institutions deserves emphasis. Three factors seem decisive. The first is the existence and belief in a private sphere of activity in which the state and its agencies may not legitimately interfere. To be sure, this zone of autonomy has had a beleaguered existence as, following Mannheim, more heretofore private spheres have been made the object of official intervention. Much of the work of Michel Foucault was an attempt to map these incursions into health, sexuality, mental illness, vagrancy, or sanitation and the strategies behind them. Nevertheless, the idea of a private realm has served to limit the ambitions of many high modernists, through either their own political values or their healthy respect for the political storm that such incursions would provoke.

The second, closely related factor is the private sector in liberal political economy. As Foucault put it: unlike absolutism and mercantilism, "political economy announces the unknowability for the sovereign of the totality of economic processes and, as a consequence, the *impossibility of an economic sovereignty*."⁵⁰ The point of liberal political economy was not only that a free market protected property and cre-

ated wealth but also that the economy was far too complex for it ever to be managed in detail by a hierarchical administration.⁵¹

The third and by far most important barrier to thoroughgoing high-modernist schemes has been the existence of working, representative institutions through which a resistant society could make its influence felt. Such institutions have thwarted the most draconian features of high-modernist schemes in roughly the same way that publicity and mobilized opposition in open societies, as Amartya Sen has argued, have prevented famines. Rulers, he notes, do not go hungry, and they are unlikely to learn about and respond readily to curb famine unless their institutional position provides strong incentives. The freedoms of speech, of assembly, and of the press ensure that widespread hunger will be publicized, while the freedoms of assembly and elections in representative institutions ensure that it is in the interest of elected officials' self-preservation to prevent famine when they can. In the same fashion, high-modernist schemes in liberal democratic settings must accommodate themselves sufficiently to local opinion in order to avoid being undone at the polls.

But high modernism, unimpeded by liberal political economy, is best grasped through the working out of its high ambitions and its consequences. It is to this practical terrain in urban planning and revolutionary discourse that we now turn.

4 The High-Modernist City: An Experiment and a Critique

No one, wise Kuublai, knows better than you that the city must never be confused with the words that describe it.

—Italo Calvino, *Invisible Cities*

Time is a fatal handicap to the baroque conception of the world: its mechanical order makes no allowances for growth, change, adaptation, and creative renewal. In short, a baroque plan was a block achievement. It must be laid out at a stroke, fixed and frozen forever, as if done overnight by Arabian nights genii. Such a plan demands an architectural despot, working for an absolute ruler, who will live long enough to complete their own conceptions. To alter this type of plan, to introduce fresh elements of another style, is to break its esthetic backbone.

—Lewis Mumford, *The City in History*

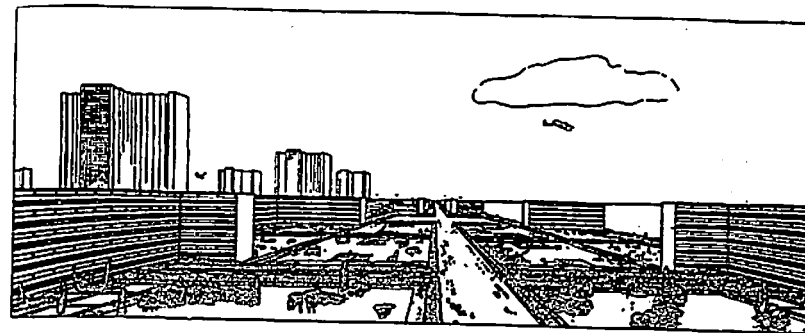
In Mumford's epigraph to this chapter, his criticism is directed at Pierre-Charles L'Enfant's Washington in particular and at baroque urban planning in general.¹ Greatly amplified, Mumford's criticism could be applied to the work and thought of the Swiss-born French essayist, painter, architect, and planner Charles-Edouard Jeanneret, who is better known by his professional name, Le Corbusier. Jeanneret was the embodiment of high-modernist urban design. Active roughly between 1920 and 1960, he was less an architect than a visionary planner of planetary ambitions. The great majority of his gargantuan schemes were never built; they typically required a political resolve and financial wherewithal that few political authorities could muster. Some monuments to his expansive genius do exist, the most notable of which are perhaps Chandigarh, the austere capital of India's Punjab, and L'Unité d'Habitation, a large apartment complex in Marseilles, but his legacy is most apparent in the logic of his unbuilt megaprojects. At one time or another he proposed city-planning schemes for Paris, Algiers, São Paulo, Rio de Janeiro, Buenos Aires, Stockholm, Geneva, and Barcelona.² His early politics was a bizarre combination of Sorel's revolutionary syndicalism and Saint-Simon's utopian modernism, and he designed both in Soviet Russia (1928–36)³ and in Vichy for Marshal Philippe Pétain. The key manifesto of modern urban planning, the Athens charter of the Congrès Internationaux d'Architecture Moderne (CIAM), faithfully reflected his doctrines.

Le Corbusier embraced the huge, machine-age, hierarchical, centralized city with a vengeance. If one were looking for a caricature—a Colonel Blimp, as it were, of modernist urbanism—one could hardly do better than to invent Le Corbusier. His views were extreme but influential, and they were representative in the sense that they celebrated the logic implicit in high modernism. In his daring, his brilliance, and his consistency, Le Corbusier casts the high-modernist faith in sharp relief.⁴

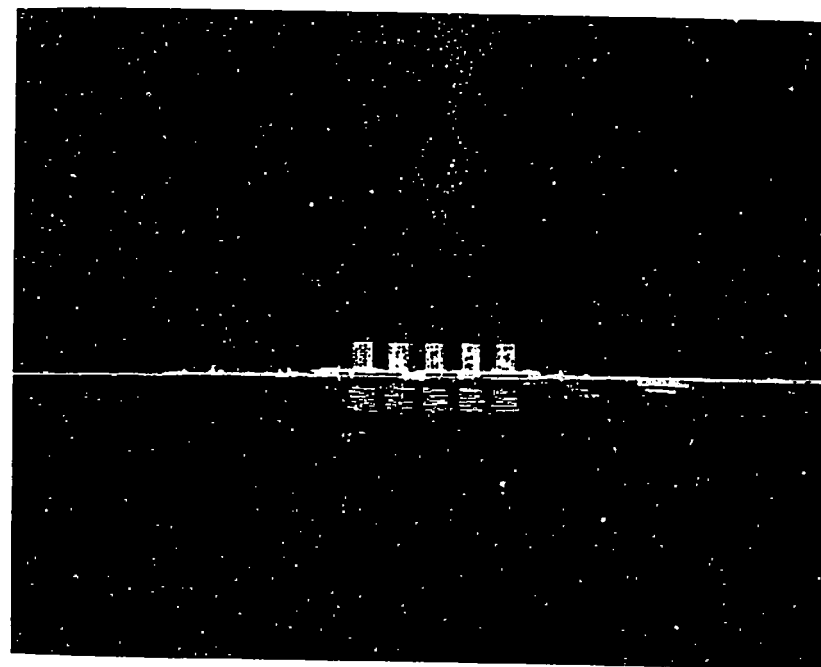
Total City Planning

In *The Radiant City* (*La ville radieuse*), published in 1933 and republished with few changes in 1964, Le Corbusier offers the most complete exposition of his views.⁵ Here as elsewhere, Le Corbusier's plans were self-consciously immodest. If E. F. Schumacher made the case for the virtue of smallness, Le Corbusier asserted, in effect, "Big is beautiful." The best way to appreciate the sheer extravagance of his reach is to look briefly at three of his designs. The first is the core idea behind his Plan Voisin for central Paris (figure 14); the second, a new "business city" for Buenos Aires (figure 15); and the last, a vast housing scheme for about ninety thousand residents in Rio de Janeiro (figure 16).

In their magnitude, these plans speak for themselves. No compromise is made with the preexisting city; the new cityscape completely supplants its predecessor. In each case, the new city has striking sculptural properties; it is designed to make a powerful visual impact as a *form*. That impact, it is worth noting, can be had only from a great distance. Buenos Aires is pictured as if seen from many miles out to sea: a view of the New World "after a two-week crossing," writes Le Corbusier, adopting the perspective of a modern-day Christopher Columbus.⁶ Rio is seen at several miles remove, as if from an airplane. What we behold is a six-kilometer-long highway elevated one hundred meters and enclosing a continuous ribbon of fifteen-story apartments. The new city literally towers over the old. The plan for a city of 3 million in Paris is seen from far above and outside, the distance emphasized by dots representing vehicles on the major avenue as well as by a small airplane and what appears to be a helicopter. None of the plans makes any reference to the urban history, traditions, or aesthetic tastes of the place in which it is to be located. The cities depicted, however striking, betray no context; in their neutrality, they could be anywhere at all. While astoundingly high construction costs may explain why none of these projects was ever adopted, Le Corbusier's refusal to make any appeal to local pride in an existing city cannot have helped his case.



14. Le Corbusier's Plan Voisin for Paris, a city of 3 million people



15. Le Corbusier's plan for the "business city" of Buenos Aires, as if seen from an approaching ship



16. Le Corbusier's plan for roads and housing in Rio de Janeiro

Le Corbusier had no patience for the physical environment that centuries of urban living had created. He heaped scorn on the tangle, darkness, and disorder, the crowded and pestilential conditions, of Paris and other European cities at the turn of the century. Part of his scorn was, as we shall see, on functional and scientific grounds; a city that was to become efficient and healthful would indeed have had to demolish much of what it had inherited. But another source of his scorn was aesthetic. He was visually offended by disarray and confusion. And the disorder he wished to correct was not so much a disorder at ground level but a disorder that was a function of distance, a bird's-eye view.⁷ His mixed motives are nicely captured in his judgment on small rural properties as seen from the air (figure 17). "From airplanes, a look down on infinitely subdivided, *incongruously shaped* plots of land. The more modern machinery develops, the more land is chopped up into tiny holdings that render the miraculous promise of machinery useless. The result is waste: inefficient, individual scrabbling."⁸ The purely formal order was at least as important as the accommodation with the machine age. "Architecture," he insisted, "is the art above all others which achieves a state of platonic grandeur, mathematical order, speculation, the perception of harmony that lies in emotional relationships."⁹

Formal, geometric simplicity and functional efficiency were not two distinct goals to be balanced; on the contrary, formal order was a precondition of efficiency. Le Corbusier set himself the task of inventing the ideal industrial city, in which the "general truths" behind the machine age would be expressed with graphic simplicity. The rigor and unity of this ideal city required that it make as few concessions as possible to the history of existing cities. "We must refuse to afford even the slightest concession to what is: to the mess we are in now," he wrote. "There is no solution to be found there." Instead, his new city would preferably rise on a cleared site as a single, integrated urban composi-

17. Aerial view of Alsace, circa 1930, from Le Corbusier's *La ville radieuse*

tion. Le Corbusier's new urban order was to be a lyrical marriage between Cartesian pure forms and the implacable requirements of the machine. In characteristically bombastic terms, he declared, "We claim, in the name of the steamship, the airplane, and the automobile, the right to health, logic, daring, harmony, perfection."¹⁰ Unlike the existing city of Paris, which to him resembled a "porcupine" and a "vision of Dante's Inferno," his city would be an "organized, serene, forceful, airy, ordered entity."¹¹

Geometry and Standardization

It is impossible to read much of Le Corbusier or to see many of his architectural drawings without noticing his love (mania?) for simple, repetitive lines and his horror of complexity. He makes a personal commitment to austere lines and represents that commitment as an essential characteristic of human nature. In his own words, "an infinity of combinations is possible when innumerable and diverse elements are brought together. But the human mind loses itself and becomes fatigued by such a labyrinth of possibilities. Control becomes impossible. The spiritual failure that must result is disheartening. . . . Reason . . . is an unbroken straight line. Thus, in order to save himself from this

chaos, in order to provide himself with a bearable, acceptable framework for his existence, one productive of human well-being and control, man has projected the laws of nature into a system that is a manifestation of the human spirit itself: geometry."¹²

When Le Corbusier visited New York City, he was utterly taken by the geometric logic of midtown Manhattan. The clarity of what he called the "skyscraper machines" and the street plan pleased him: "The streets are at right angles to each other and the mind is liberated."¹³ Elsewhere Le Corbusier answered what he saw as the criticism of those who were nostalgic for the variety of the existing city—in this case, Paris. People may complain, he noted, that in reality streets intersect at all sorts of angles and that the variations are infinite. "But," he replied, "that's precisely the point. *I eliminate all those things. That's my starting point. . . . I insist on right-angled intersections.*"¹⁴

Le Corbusier would have liked to endow his love of straight lines and right angles with the authority of the machine, of science, and of nature. Neither the brilliance of his designs nor the heat of his polemic, however, could succeed in justifying this move. The machines to which he most adoringly referred—the locomotive, the airplane, and the automobile—embody rounder or more elliptical shapes than right angles (the teardrop being the most streamlined of shapes). As for science, *any* shape is geometrical: the trapezoid, the triangle, the circle. If sheer simplicity or efficiency was the criterion, why not prefer the circle or sphere—as the minimum surface enclosing the maximum space—to the square or the rectangle? Nature, as Le Corbusier claimed, might be mathematical, but the complex, intricate, "chaotic" logic of living forms has only recently been understood with the aid of computers.¹⁵ No, the great architect was expressing no more, and no less, than an aesthetic ideology—a strong taste for classic lines, which he also considered to be "Gallic" lines: "sublime straight lines, and oh, sublime French rigor."¹⁶ It was *one* powerful way of mastering space. What's more, it provided a legible grid that could be easily grasped at a glance and that could be repeated in every direction, ad infinitum. As a practical matter, of course, a straight line was often impractical and ruinously expensive. Where the topography was irregular, building a straight, flat avenue without daunting climbs and descents would require great feats of digging and leveling. Le Corbusier's kind of geometry was rarely cost effective.

He took his utopian scheme for an abstract, linear city to impressive lengths. He foresaw that the industrialization of the construction trades would lead to a welcome standardization. He foresaw, too, the prefabrication of houses and office blocks, whose parts were built at

factories and then assembled at the building sites. The sizes of all elements would be standardized, with multiples of standard sizes allowing for unique combinations determined by the architect. Door frames, windows, bricks, roof tiles, and even screws would all conform to a uniform code. The first manifesto of CIAM in 1928 called for the new standards to be legislated by the League of Nations, which would develop a universal technical language to be compulsorily taught throughout the world. An international convention would "normalize" the various standard measurements for domestic equipment and appliances.¹⁷ Le Corbusier made efforts to practice what he preached. His design for the mammoth Palace of Soviets (never built) was intended to appeal to Soviet high modernism. The building, he claimed, would establish precise and universal new standards for all buildings—standards that would cover lighting, heating, ventilation, structure, and aesthetics and that would be valid in all latitudes for all needs.¹⁸

The straight line, the right angle, and the imposition of international building standards were all determined steps in the direction of simplification. Perhaps the most decisive step, however, was Le Corbusier's lifelong insistence on strict functional separation. Indicative of this doctrine was the second of fourteen principles he enunciated at the beginning of *La ville radieuse*, namely, "the death of the street." What he meant by this was simply the complete separation of pedestrian traffic from vehicle traffic and, beyond that, the segregation of slow-from fast-moving vehicles. He abhorred the mingling of pedestrians and vehicles, which made walking unpleasant and impeded the circulation of traffic.

The principle of functional segregation was applied across the board. Written by Le Corbusier and his brother Pierre, the final report for the second meeting of CIAM, in 1929, began with an assault on traditional housing construction: "The poverty, the inadequacy of traditional techniques have brought in their wake a confusion of powers, *an artificial mingling of functions*, only indifferently related to one another. . . . We must find and apply new methods . . . lending themselves naturally to standardization, industrialization, Taylorization. . . . If we persist in the present methods by which the two functions [arrangement and furnishing versus construction; circulation versus structure] are mingled and interdependent, then we will remain petrified in the same immobility."¹⁹

Outside the apartment block, the city itself was an exercise in planned functional segregation—an exercise that became standard urban-planning doctrine until the late 1960s. There would be separate zones for workplaces, residences, shopping and entertainment centers,

and monuments and government buildings. Where possible, work zones were to be further subdivided into office buildings and factories. Le Corbusier's insistence on an urban plan in which each district had one and only one function was evident in his first act after taking over the planning of Chandigarh, his only built city. He replaced the housing that had been planned for the city center with an "acropolis of monuments" on a 220-acre site at a great distance from the nearest residences.²⁰ In his Plan Voisin for Paris, he separated what he called *la ville*, which was for dwelling, and the business center, which was for working. "These are two distinct functions, consecutive and not simultaneous, representative of two distinct and categorically separate areas."²¹

The logic of this rigid segregation of functions is perfectly clear. It is far easier to plan an urban zone if it has just one purpose. It is far easier to plan the circulation of pedestrians if they do not have to compete with automobiles and trains. It is far easier to plan a forest if its sole purpose is to maximize the yield of furniture-grade timber. When two purposes must be served by a single facility or plan, the trade-offs become nettlesome. When several or many purposes must be considered, the variables that the planner must juggle begin to boggle the mind. Faced with such a labyrinth of possibilities, as Le Corbusier noted, "the human mind loses itself and becomes fatigued."

The segregation of functions thus allowed the planner to think with greater clarity about efficiency. If the only function of roads is to get automobiles from A to B quickly and economically, then one can compare two road plans in terms of relative efficiency. This logic is eminently reasonable inasmuch as this is precisely what we have in mind when we build a road from A to B. Notice, however, that the clarity is achieved by bracketing the many other purposes that we may want roads to serve, such as affording the leisure of a touristic drive, providing aesthetic beauty or visual interest, or enabling the transfer of heavy goods. Even in the case of roads, narrow criteria of efficiency ignore other ends that are not trivial. In the case of the places that people call home, narrow criteria of efficiency do considerably greater violence to human practice. Le Corbusier calculates the air (*la respiration exacte*), heat, light, and space people need as a matter of public health. Starting with a figure of fourteen square meters per person, he reckons that this could be reduced to ten square meters if such activities as food preparation and laundering were communal. But here the criteria of efficiency that may apply to a road can hardly do justice to a home, which is variously used as a place for work, recreation, privacy, sociability, education, cooking, gossip, politics, and so on. Each of

these activities, moreover, resists being reduced to criteria of efficiency; what is going on in the kitchen when someone is cooking for friends who have gathered there is not merely "food preparation." But the logic of efficient planning from above for large populations requires that each of the values being maximized be sharply specified and that the number of values being maximized simultaneously be sharply restricted—preferably to a single value.²² The logic of Le Corbusier's doctrine was to carefully delineate urban space by use and function so that single-purpose planning and standardization were possible.²³

Rule by the Plan, the Planner, and the State

The first of Le Corbusier's "principles of urbanism," before even "the death of the street," was the dictum "The Plan: Dictator."²⁴ It would be difficult to exaggerate the emphasis that, like Descartes, Le Corbusier placed on making the city the reflection of a single, rational plan. He greatly admired Roman camps and imperial cities for the overall logic of their layouts. He returned repeatedly to the contrast between the existing city, which is the product of historical chance, and the city of the future, which would be consciously designed from start to finish following scientific principles.

The centralization required by Le Corbusier's doctrine of the Plan (always capitalized in his usage) is replicated by the centralization of the city itself. Functional segregation was joined to hierarchy. His city was a "monocephalic" city, its centrally located core performing the "higher" functions of the metropolitan area. This is how he described the business center of his Plan Voisin for Paris: "From its offices come the commands that put the world in order. In fact, the skyscrapers are the *brain* of the city, the *brain of the whole country*. They embody the work of elaboration and command on which all activities depend. Everything is concentrated there: the tools that conquer time and space—telephones, telegraphs, radios, the banks, trading houses, the organs of decision for the factories: finance, technology, commerce."²⁵

The business center issues commands; it does not suggest, much less consult. The program of high-modernist authoritarianism at work here stems in part from Le Corbusier's love of the order of the factory. In condemning the "rot" (*la pourriture*) of the contemporary city, its houses, and its streets, he singles out the factory as the sole exception. There, a single rational purpose structures both the physical layout and the coordinated movements of hundreds. The Van Nelle tobacco factory in Rotterdam is praised in particular. Le Corbusier admires its austere-

ity, its floor-to-ceiling windows on each floor, the order in the work, and the apparent contentment of the workers. He finishes with a hymn to the authoritarian order of the production line. "There is a hierarchical scale, famously established and respected," he admiringly observes of the workers. "They accept it so as to manage themselves like a colony of worker-bees: order, regularity, punctuality, justice and paternalism."²⁶

The scientific urban planner is to the design and construction of the city as the entrepreneur-engineer is to the design and construction of the factory. Just as a single brain plans the city and the factory, so a single brain directs its activity—from the factory's office and from the city's business center. The hierarchy doesn't stop there. The city is the brain of the whole society. "The great city commands everything: peace, war, work."²⁷ Whether it is a matter of clothing, philosophy, technology, or taste, the great city dominates and colonizes the provinces: the lines of influence and command are exclusively from the center to the periphery.²⁸

There is no ambiguity to Le Corbusier's view of how authority relations should be ordered: hierarchy prevails in every direction. At the apex of the pyramid, however, is not a capricious autocrat but rather a modern philosopher-king who applies the truths of scientific understanding for the well-being of all.²⁹ It is true, naturally, that the master planner, in his not infrequent bouts of megalomania, imagines that he alone has a monopoly on the truth. In a moment of personal reflection in *The Radiant City*, for example, Le Corbusier declares: "I drew up plans [for Algiers], after analyses, after calculations, with imagination, with poetry. The plans were prodigiously true. They were incontrovertible. They were breathtaking. They expressed all the splendor of modern times."³⁰ It is not, however, the excess of pride that concerns us here but the sort of implacable authority Le Corbusier feels entitled to claim on behalf of universal scientific truths. His high-modernist faith is nowhere so starkly—or so ominously—expressed as in the following, which I quote at length:

The despot is not a man. It is the *Plan*. The correct, realistic, exact plan, the one that will provide your solution once the problem has been posited clearly, in its entirety, in its indispensable harmony. This plan has been drawn up well away from the frenzy in the mayor's office or the town hall, from the cries of the electorate or the laments of society's victims. It has been drawn up by serene and lucid minds. It has taken account of nothing but human truths. It has ignored all current regulations, all existing usages, and channels. It has not considered whether or not it could be carried out with the constitution now in force. It is a biological creation destined for human beings and capable of realization by modern techniques.³¹

The wisdom of the plan sweeps away all social obstacles: the elected authorities, the voting public, the constitution, and the legal structure. At the very least, we are in the presence of a dictatorship of the planner; at most, we approach a cult of power and remorselessness that is reminiscent of fascist imagery.³² Despite the imagery, Le Corbusier sees himself as a technical genius and demands power in the name of his truths. Technocracy, in this instance, is the belief that the human problem of urban design has a unique solution, which an expert can discover and execute. Deciding such technical matters by politics and bargaining would lead to the wrong solution. As there is a single, true answer to the problem of planning the modern city, no compromises are possible.³³

Throughout his career, Le Corbusier is clearly aware that his kind of root-and-branch urban planning requires authoritarian measures. "A Colbert is required," he declares to his French reading public in an early article entitled "Toward a Machine Age Paris."³⁴ On the title page of his major work, one finds the words, "This work is Dedicated to Authority." Much of Le Corbusier's career as a would-be public architect can be read as a quest for a "Prince" (preferably an authoritarian one) who would anoint him as the court's Colbert. He exhibited designs for the League of Nations, lobbied the Soviet elite to accept his new plan for Moscow, and did what he could to get himself appointed as regulator of planning and zoning for the whole of France and to win the adoption of his plan for the new Algiers. Finally, under the patronage of Jawaharlal Nehru, he built a provincial capital at Chandigarh in India. Although Le Corbusier's own political affiliations in France were firmly anchored on the right,³⁵ he would clearly have settled for any state authority that would give him a free hand. He was appealing to logic rather than politics when he wrote, "Once his [the scientific planner's] calculations are finished, he is in a position to say—and he does say: *It shall be thus!*"³⁶

What captivated Le Corbusier about the Soviet Union was not so much its ideology as the prospect that a revolutionary, high-modernist state might prove hospitable to a visionary planner. After building the headquarters of the Central Union of Consumer Cooperatives (Centrosyuz),³⁷ he proposed, in plans prepared in only six weeks, a vast design for the rebuilding of Moscow in line with what he thought were Soviet aspirations to create an entirely new mode of living in a classless society. Having seen Sergey Eisenstein's film about the peasantry and technology, *The General Line*, Le Corbusier was utterly taken with its celebration of tractors, centrifuge creamers, and huge farms. He referred to it often in his plan to work a comparable transformation of Russia's urban landscape.

Stalin's commissars found his plans for Moscow as well as his project for the Palace of Soviets too radical.³⁸ The Soviet modernist El Lissitzky attacked Le Corbusier's Moscow as a "city of nowhere, . . . [a city] that is neither capitalist, nor proletarian, nor socialist, . . . a city on paper, extraneous to living nature, located in a desert through which not even a river must be allowed to pass (since a curve would contradict the style)."³⁹ As if to confirm El Lissitzky's charge that he had designed a "city of nowhere," Le Corbusier recycled his design virtually intact—aside from removing all references to Moscow—and presented it as *La ville radieuse*, suitable for central Paris.

The City as a Utopian Project

Believing that his revolutionary urban planning expressed universal scientific truths, Le Corbusier naturally assumed that the public, once they understood this logic, would embrace his plan. The original manifesto of CIAM called for primary school students to be taught the elementary principles of scientific housing: the importance of sunlight and fresh air to health; the rudiments of electricity, heat, lighting, and sound; the right principles of furniture design; and so on. These were matters of science, not of taste; instruction would create, in time, a clientele worthy of the scientific architect. Whereas the scientific forester could, as it were, go right to work on the forest and shape it to his plan, the scientific architect was obliged to first train a new clientele that would "freely" choose the urban life that Le Corbusier had planned for them.

Any architect, I imagine, supposes that the dwellings she designs will contribute to her clients' happiness rather than to their misery. The difference lies in how the architect understands happiness. For Le Corbusier, "*human happiness already exists* expressed in terms of numbers, of mathematics, of properly calculated designs, plans in which the cities can already be seen."⁴⁰ He was certain, at least rhetorically, that since his city was the rational expression of a machine-age consciousness, modern man would embrace it wholeheartedly.⁴¹

The kinds of satisfactions that the citizen-subject of Le Corbusier's city would experience, however, were not the pleasures of personal freedom and autonomy. They were the pleasures of fitting logically into a rational plan: "Authority must now step in, patriarchal authority, the authority of a father concerned for his children. . . . We must build places where mankind will be reborn. When the collective functions of the urban community have been organized, then there will be individual liberty for all. Each man will live in an ordered relation to the

whole."⁴² In the Plan Voisin for Paris, the place of each individual in the great urban hierarchy is spatially coded. The business elite (*industrials*) will live in high-rise apartments at the core, while the subaltern classes will have small garden apartments at the periphery. One's status can be directly read from one's distance from the center. But, like everyone in a well-run factory, everyone in the city will have the "collective pride" of a team of workers producing a perfect product. "The worker who does only a part of the job understands the role of his labor; the machines that cover the floor of the factory are examples to him of power and clarity, and *make him part of a work of perfection to which his simple spirit never dared to aspire*."⁴³ Just as Le Corbusier was perhaps most famous for asserting that "the home is a machine for living," so he thought of the planned city as a large, efficient machine with many closely calibrated parts. He assumed, therefore, that the citizens of his city would accept, with pride, their own modest role in a noble, scientifically planned urban machine.

By his own lights Le Corbusier was planning for the basic needs of his fellow men—needs that were ignored or traduced in the existing city. Essentially, he established them by stipulating an abstract, simplified human subject with certain material and physical requirements. This schematic subject needed so many square meters of living space, so much fresh air, so much sunlight, so much open space, so many essential services. At this level, he designed a city that was indeed far more healthful and functional than the crowded, dark slums against which he railed. Thus he spoke of "punctual and exact respiration," of various formulas for determining optimal sizes for apartments; he insisted on apartment skyscrapers to allow for park space and, above all, for efficient traffic circulation.

The Le Corbusian city was designed, first and foremost, as a workshop for production. Human needs, in this context, were scientifically stipulated by the planner. Nowhere did he admit that the subjects for whom he was planning might have something valuable to say on this matter or that their needs might be plural rather than singular. Such was his concern with efficiency that he treated shopping and meal preparation as nuisances that would be discharged by central services like those offered by well-run hotels.⁴⁴ Although floor space was provided for social activities, he said almost nothing about the actual social and cultural needs of the citizenry.

High modernism implies, as we have seen, a rejection of the past as a model to improve upon and a desire to make a completely fresh start. The more utopian the high modernism, the more thoroughgoing its implied critique of the existing society. Some of the most vituperative

prose of *The Radiant City* was directed at the misery, confusion, "rot," "decay," "scum," and "refuse" of the cities that Le Corbusier wanted to transcend. The slums he showed in pictures were labeled "shabby" or, in the case of the French capital, "history, historic and tubercular Paris." He deplored both the conditions of the slums and the people they had created. "How many of those five million [those who came from the countryside to make their fortune] are simply a dead weight on the city, an obstacle, a black clot of misery, of failure, of human garbage?"⁴⁵

His objection to the slums was twofold. First, they failed aesthetically to meet his standards of discipline, purpose, and order. "Is there anything," he asked rhetorically, "more pitiful than an undisciplined crowd?" Nature, he added, is "all discipline" and will "sweep them away" even if nature operates by a logic "contrary to the interests of mankind."⁴⁶ Here he signals that the founders of the modern city must be prepared to act ruthlessly. The second danger of the slums was that, besides being noisy, dangerous, dusty, dark, and disease-ridden, they harbored a potential revolutionary menace to the authorities. He understood, as Haussmann had, that crowded slums were and had always been an obstacle to efficient police work. Switching back and forth between Louis XIV's Paris and imperial Rome, Le Corbusier wrote: "From the huddle of hovels, from the depths of grimy lairs (in Rome—the Rome of the Caesars—the plebes lived in an inextricable chaos of abutting and warren-like skyscrapers), there sometimes came the hot gust of rebellion; the plot would be hatched in the *dark recesses of an accumulated chaos in which any kind of police activity was extremely difficult*. . . . St. Paul of Tarsus was impossible to arrest while he stayed in the slums, and the words of his Sermons were passed like wildfire from mouth to mouth."⁴⁷

In case they were wondering, Le Corbusier's potential bourgeois backers and their representatives could rest assured that his legible, geometric city would facilitate police work. Where Haussmann managed to retrofit the baroque city of absolutism, Le Corbusier proposed to clear the decks completely and replace the center of Haussmann's city with one built with control and hierarchy in mind.⁴⁸

A Textbook Case of High-Modernist Architecture

Le Corbusier's intellectual influence on architecture was out of all proportion to the actual structures he built. Not even the Soviet Union was quite up to his sweeping ambition. It is as an exemplar, a textbook case, of the key elements of high-modernist planning—often exaggerated—that he belongs in this analysis. His commitment to what he

called the "total efficiency and total rationalization" of a new machine-age civilization was uncompromising.⁴⁹ Although he was obliged to deal with nation-states, his vision was universal. As he put it, "city planning everywhere, universal city planning, total city planning."⁵⁰ His actual plans for Algiers, Paris, and Rio were, as we have seen, on a scale that was virtually without precedent. Le Corbusier was influenced, as were others of his generation, by the spectacle of total military mobilization in World War I. "Let's make our plans," he urged, "plans on a scale with twentieth century events, plans equally as big as Satan's [war]. . . . Big! Big!"⁵¹

The visual, aesthetic component of his bold plans was central. Clean, smooth lines were something he associated with the "all-business" leanness of the machine. He was positively lyrical about the beauty of the machine and its products. And houses, cities, and agrovilles could also "emerge properly equipped, glitteringly new, from the factory, from the workshop, faultless products of smoothly humming machines."⁵²

Integral, finally, to Le Corbusier's ultramodernism was his repudiation of tradition, history, and received taste. After explaining the origin of the traffic congestion in contemporary Paris, he warned against temptations to reform. "We must refuse even the slightest consideration to *what is*: to the mess we are in now." He emphasized, "There is no solution to be found here."⁵³ Instead, he insisted, we must take a "blank piece of paper," a "clean tablecloth," and start new calculations from zero. It was in this context that he was drawn to the USSR and to the ambitious rulers of developing countries. There, he hoped, he would not be cramped by the "grotesquely inadequate sites" available in the West, where it was possible to practice only what he called an "*orthopedic architecture*."⁵⁴ The long-established cities of the West, their traditions, their interest groups, their slow-moving institutions, and their complex legal and regulatory structures could only shackle the dreams of a high-modernist Gulliver.

Brasília: The High-Modernist City Built—Almost

Cities also believe they are the work of the mind or of chance, but neither the one nor the other suffices to hold up their walls.

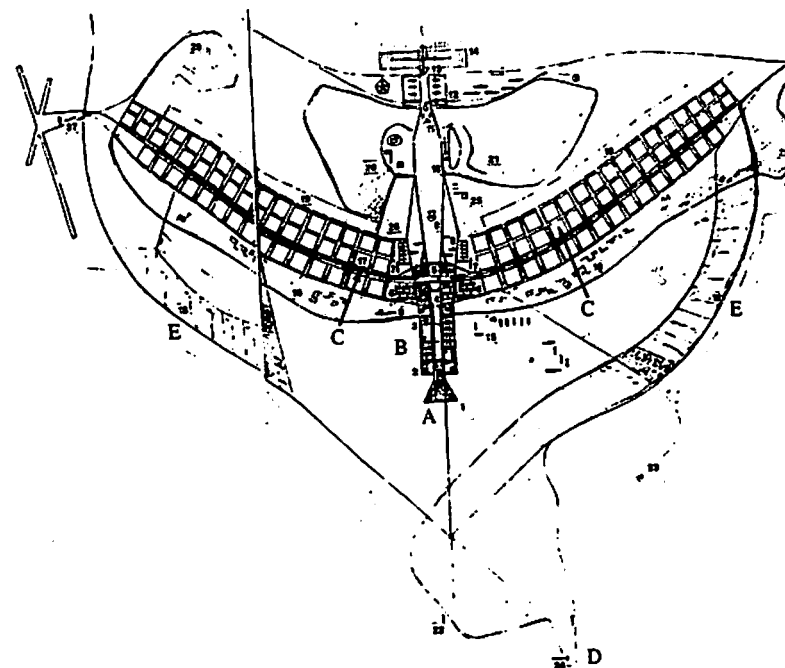
—Italo Calvino, *Invisible Cities*

No utopian city gets built precisely as designed by its prophet-architect. Just as the scientific forester is foiled by the vagaries of unpredictable nature and by the divergent purposes of both his employers and those who have access to the forest, so the urban planner must contend with

the tastes and financial means of his patrons as well as the resistance of builders, workers, and residents. Even so, Brasília is about the closest thing we have to a high-modernist city, having been built more or less along the lines set out by Le Corbusier and CIAM. Thanks to an excellent book by James Holston, *The Modernist City: An Anthropological Critique of Brasília*,⁵⁵ it is possible to analyze both the logic of the plan for Brasília and the extent of its realization. An appreciation of the slippage between what Brasília meant for its originators on one hand and for its residents on the other will in turn pave the way (no pun intended) for Jane Jacob's thoroughgoing critique of modern urban planning.

The idea of a new capital in the interior predates even the independence of Brazil.⁵⁶ Its realization, however, was the pet project of Juscelino Kubitschek, the populist president from 1956 to 1961, who promised Brazilians "fifty years of progress in five" and a future of self-sustaining economic growth. In 1957 Oscar Niemeyer, who had already been named the chief architect for public buildings and housing prototypes, organized a design competition that was won, on the basis of very rough sketches, by Lucio Costa. Costa's idea—for it was no more than that—was of a "monumental axis" to define the center of the city, which consisted of terraced embankments describing an arc intersected in its center by a straight avenue, and of a triangle to define the city's limits (figure 18).

Both architects were working within the doctrines of CIAM and Le Corbusier. Niemeyer, a longtime member of the Brazilian Communist Party, was also influenced by the Soviet version of architectural modernism. After the design competition, construction began almost immediately on an empty site on the Central Plateau in the state of Goiás, nearly 1000 kilometers from Rio de Janeiro and the coast and 1620 kilometers from the Pacific Ocean in the northeast. It was indeed a new city in the wilderness. No "orthopedic" compromises were necessary now that the planners had, thanks to Kubitschek, who made Brasília his top priority, a "clean tablecloth." The state planning agency controlled all the land at the site, so there were no private-property owners with whom to negotiate. The city was then designed from the ground up, according to an elaborate and unified plan. Housing, work, recreation, traffic, and public administration were each spatially segregated as Le Corbusier would have insisted. Inasmuch as Brasília was itself a single-function, strictly administrative capital, the planning itself was greatly simplified.



18. The Costa plan of 1957, showing A, the Plaza of the Three Powers; B, the ministries; C, superquadra residential zones; D, the president's residence; and E, single-family housing

Brasília as the Negation (or Transcendence) of Brazil

Brasília was conceived of by Kubitschek and by Costa and Niemeyer as a city of the future, a city of development, a realizable utopia. It made no reference to the habits, traditions, and practices of Brazil's past or of its great cities, São Paulo, São Salvador, and Rio de Janeiro. As if to emphasize the point, Kubitschek called his own residence in Brasília the Dawn Palace. "What else will Brasília be," he asked, "if not the dawn of a new day for Brazil?"⁵⁷ Like the Saint Petersburg of Peter the Great, Brasília was to be an exemplary city, a center that would transform the lives of the Brazilians who lived there—from their personal habits and household organization to their social lives, leisure, and work. The goal of making over Brazil and Brazilians necessarily implied a disdain for what Brazil had been. In this sense, the whole point of the new capital was to be a manifest contrast to the corruption, backwardness, and ignorance of the old Brazil.

The great crossroads that was the plan's point of departure has been variously interpreted as a symbol of Christ's cross or an Amazonian bow. Costa, however, referred to it as a "monumental axis," the same term that Le Corbusier used to describe the center of many of his urban plans. Even if the axis represented a small attempt to assimilate Brasília in some way to its national tradition, it remained a city that could have been anywhere, that provided no clue to its own history, unless that history was the modernist doctrine of CIAM. It was a state-imposed city invented to project a new Brazil to Brazilians and to the world at large. And it was a state-imposed city in at least one other sense: inasmuch as it was created to be a city for civil servants, many aspects of life that might otherwise have been left to the private sphere were minutely organized, from domestic and residential matters to health services, education, child care, recreation, commercial outlets, and so forth.

If Brasília was to be Brazil's urban future, what was Brazil's urban past and present? What, precisely, was the new capital intended to negate? A large part of the answer can be inferred from Le Corbusier's second principle of the new urbanism: "the death of the street." Brasília was designed to eliminate the street and the square as places for public life. Although the elimination of local *barrio* loyalties and rivalries may not have been planned, they were also a casualty of the new city.

The public square and the crowded "corridor" street had been venues of civic life in urban Brazil since colonial days. As Holston explains, this civic life took two forms. In the first, which had been sponsored by the church or state, ceremonial or patriotic processions and rituals were typically held in the principal square of the town.⁵⁸ The second form encompassed a nearly inexhaustible range of popular uses of all the town squares. Children might play there; adults might simply shop, stroll and run into acquaintances, meet friends for a meal or coffee, play cards or chess, enjoy the social diversions of seeing and being seen. The point is that the square, as a confluence of streets and a sharply enclosed, framed space, become what Holston aptly calls a "public visiting room."⁵⁹ As a public room, the square is distinguished by its accessibility to all social classes and the great variety of activities it accommodates. Barring state proscriptions, it is a flexible space that enables those who use it to use it for *their* mutual purposes. The square or the busy street attracts a crowd precisely because it provides an animated scene—a scene in which thousands of unplanned, informal, improvised encounters can take place simultaneously. The street was the spatial focus for public life outside the usually cramped family dwelling.⁶⁰ The colloquialism for "I'm going downtown" was "I'm going

to the street." As the focus for sociability, these spaces were also crucial sites for the development of public opinion as well as for "barrio nationalism," which could take institutional form in sports teams, bands, patron-saint celebrations, festival groups, and so on. It goes without saying that the street or the public square, under the right circumstances, could also become the site of public demonstrations and riots directed against the state.

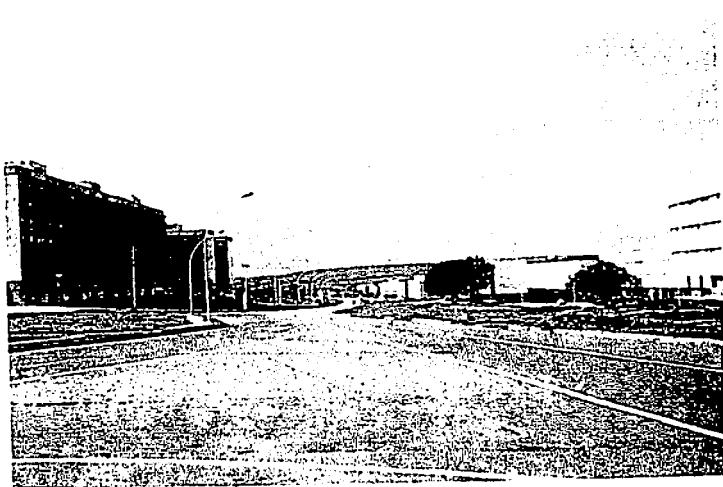
A mere glance at the scenes of Brasília, juxtaposed to the urban Brazil that we have been describing, shows at once how radical is the transformation. There are no streets in the sense of public gathering places; there are only roads and highways to be used exclusively by motorized traffic (compare figures 19 and 20).

There is a square. But what a square! The vast, monumental Plaza of the Three Powers, flanked by the Esplanade of the Ministries, is of such a scale as to dwarf even a military parade (compare figures 21 and 22, and figures 23 and 24). In comparison, Tiananmen Square and the Red Square are positively cozy and intimate. The plaza is best seen, as are many of Le Corbusier's plans, from the air (as in figure 24). If one were to arrange to meet a friend there, it would be rather like trying to meet someone in the middle of the Gobi desert. And if one did meet up with one's friend, there would be nothing to do. Functional simplification demands that the rationale for the square as a public visiting room be designed out of Brasília. This plaza is a symbolic center for the state; the only activity that goes on around it is the work of the ministries. Whereas the vitality of the older square depended on the mix of residence, commerce, and administration in its catchment area, those who work in the ministries must drive to their residences and then again to the separate commercial centers of each residential area.

One striking result of Brasília's cityscape is that virtually all the public spaces in the city are officially designated public spaces: the stadium, the theater, the concert hall, the planned restaurants. The smaller, unstructured, informal public spaces—sidewalk cafés, street corners, small parks, neighborhood squares—do not exist. Paradoxically, a great deal of nominally open space characterizes this city, as it does Le Corbusier's city plans. But that space tends to be "dead" space, as in the Plaza of the Three Powers. Holston explains this by showing how CIAM doctrines create sculptural masses widely separated by large voids, an inversion of the "figure-ground" relations in older cities. Given our perceptual habits, these voids in the modernist city seem to be not inviting public spaces but boundless, empty spaces that are avoided.⁶¹ One could fairly say that the effect of the plan was to design out all those unauthorized locations where casual encounters could



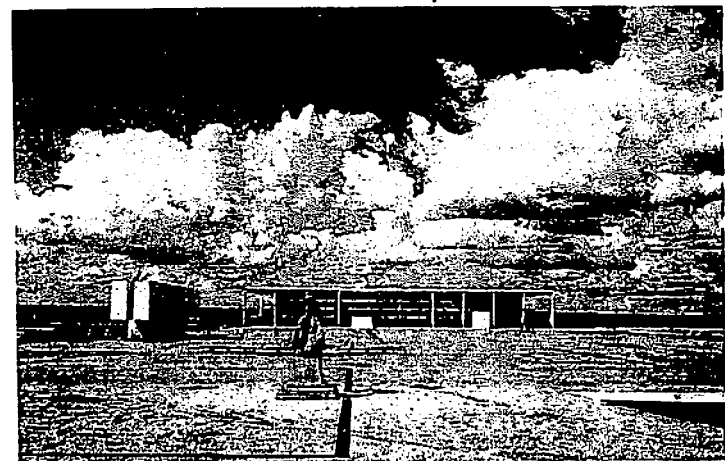
19. Residential street in the neighborhood Barra Funda, São Paulo, 1988



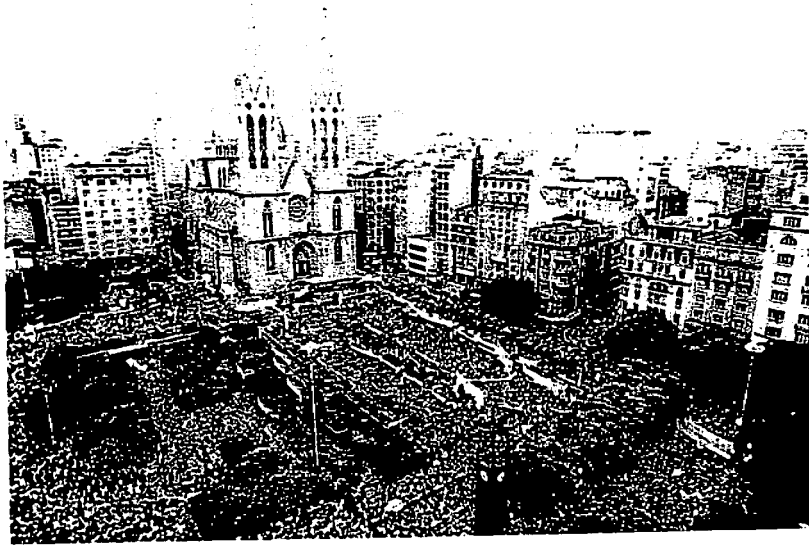
20. Residential access way L1 in Brasília, 1980



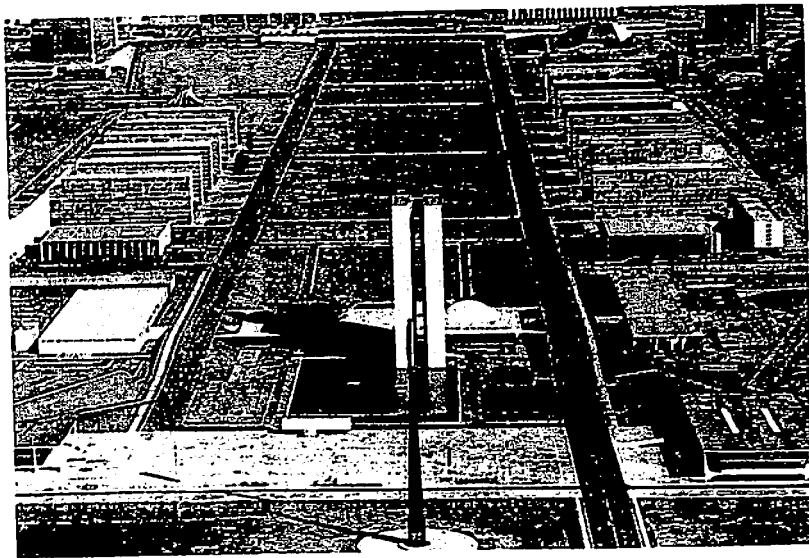
21. Largo do Pelourinho, with the museum of the city and the former slave market, São Salvador, 1980



22. The Plaza of the Three Powers, with the museum of the city and Planalto Palace, Brasília, 1980



23. The Praça de Sé, São Paulo, 1984



24. The Plaza of the Three Powers and the Esplanade of the Ministries, Brasília, 1981

occur and crowds could gather spontaneously. The dispersal and functional segregation meant that meeting someone virtually required a plan.

Costa and Niemeyer were not only banishing the street and the square from their utopian city. They believed that they were also banishing crowded slums, with their darkness, disease, crime, pollution, traffic jams and noise, and lack of public services. There were definite advantages to beginning with an empty, bulldozed site belonging to the state. At least the problems of land speculation, rent gouging, and property-based inequalities that beset most planners could be circumvented. As with Le Corbusier and Haussmann, there was an emancipating vision here. The best and most current architectural knowledge about sanitation, education, health, and recreation could be made part of the design. Twenty-five square meters of green space per resident reached the UNESCO-designed ideal. And as with any utopian plan, the design of Brasília reflected the social and political commitments of the builders and their patron, Kubitschek. All residents would have similar housing; the sole difference would be the number of units they were allotted. Following the plans of progressive European and Soviet architects, the planners of Brasília grouped the apartment buildings into what were called *superquadra* in order to facilitate the development of a collective life. Each *superquadra* (roughly 360 apartments housing 1,500–2,500 residents) had its own nursery and elementary school; each grouping of four *superquadra* had a secondary school, a cinema, a social club, sports facilities, and a retail sector.

Virtually all the needs of Brasília's future residents were reflected in the plan. It is just that these needs were the same abstract, schematic needs that produced the formulas for Le Corbusier's plans. Although it was surely a rational, healthy, rather egalitarian, state-created city, its plans made not the slightest concession to the desires, history, and practices of its residents. In some important respects, Brasília is to São Paulo or Rio as scientific forestry is to the unplanned forest. Both plans are highly legible, planned simplifications devised to create an efficient order that can be monitored and directed from above. Both plans, as we shall see, miscarry in comparable respects. Finally, both plans change the city and the woods to conform to the simple grid of the planner.

Living in Brasília

Most of those who have moved to Brasília from other cities are amazed to discover "that it is a city without crowds." People complain

that Brasília lacks the bustle of street life, that it has none of the busy street corners and long stretches of storefront facades that animate a sidewalk for pedestrians. For them, it is almost as if the founders of Brasília, rather than having planned a city, have actually planned to prevent a city. The most common way they put it is to say that Brasília "lacks street corners," by which they mean that it lacks the complex intersections of dense neighborhoods comprising residences and public cafés and restaurants with places for leisure, work, and shopping. While Brasília provides well for some human needs, the functional separation of work from residence and of both from commerce and entertainment, the great voids between superquadra, and a road system devoted exclusively to motorized traffic make the disappearance of the street corner a foregone conclusion. The plan did eliminate traffic jams; it also eliminated the welcome and familiar pedestrian jams that one of Holston's informants called "the point of social conviviality."⁶²

The term *brasilite*, meaning roughly Brasília-itis, which was coined by the first-generation residents, nicely captures the trauma they experienced.⁶³ As a mock clinical condition, it connotes a rejection of the standardization and anonymity of life in Brasília. "They use the term *brasilite* to refer to their feelings about a daily life without the pleasures—the distractions, conversations, flirtations, and little rituals—of outdoor life in other Brazilian cities."⁶⁴ Meeting someone normally requires seeing them either at their apartment or at work. Even if we allow for the initial simplifying premise of Brasília's being an administrative city, there is nonetheless a bland anonymity built into the very structure of the capital. The population simply lacks the small accessible spaces that they could colonize and stamp with the character of their activity, as they have done historically in Rio and São Paulo. To be sure, the inhabitants of Brasília haven't had much time to modify the city through their practices, but the city is designed to be fairly recalcitrant to their efforts.⁶⁵

"Brasilite," as a term, also underscores how the built environment affects those who dwell in it. Compared to life in Rio and São Paulo, with their color and variety, the daily round in bland, repetitive, austere Brasília must have resembled life in a sensory deprivation tank. The recipe for high-modernist urban planning, while it may have created formal order and functional segregation, did so at the cost of a sensorily impoverished and monotonous environment—an environment that inevitably took its toll on the spirits of its residents.

The anonymity induced by Brasília is evident from the scale and exterior of the apartments that typically make up each residential superquadra (compare figures 25 and 26). For superquadra residents,

the two most frequent complaints are the sameness of the apartment blocks and the isolation of the residences ("In Brasília, there is only house and work").⁶⁶ The facade of each block is strictly geometric and egalitarian. Nothing distinguishes the exterior of one apartment from another; there are not even balconies that would allow residents to add distinctive touches and create semipublic spaces. Part of the disorientation arises from the fact that apartment dwelling—especially, perhaps, this form of apartment dwelling—fails to accord with deeply embedded conceptions of home. Holston asked a class of nine-year-old children, most of whom lived in superquadra, to draw a picture of "home." Not one drew an apartment building of any kind. All drew, instead, a traditional freestanding house with windows, a central door, and a pitched roof.⁶⁷ The superquadra blocks, by contrast, resist the stamp of individuality, while the glass walls on their exteriors infringe on the sense of private space in the home.⁶⁸ Concerned with the overall aesthetic of the plan, the architects erased not only the external display of status distinctions but also much of the visual play of difference. Just as the general design of the city militates against an autonomous public life, so the design of the residential city militates against individuality.

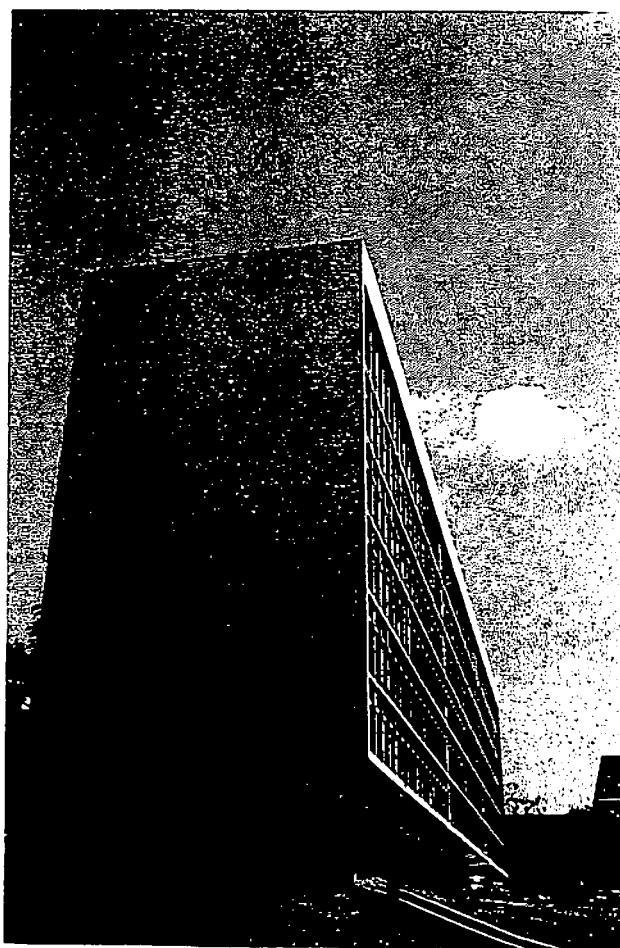
The disorienting quality of Brasília is exacerbated by architectural repetition and uniformity. Here is a case where what seems like rationality and legibility to those working in administration and urban services seems like mystifying disorder for the ordinary residents who must navigate the city. Brasília has few landmarks. Each commercial quarter or superquadra cluster looks roughly like any other. The sectors of the city are designated by an elaborate set of acronyms and abbreviations that are nearly impossible to master, except from the global logic of the center. Holston notes the irony between macro-order and micro-confusion: "Thus, while the topologies of total order produce an unusual, abstract awareness of the plan, practical knowledge of the city actually decreases with the imposition of systematic rationality."⁶⁹ From the perspective of the planners of a utopian city, whose goal is more to change the world than to accommodate it, however, the shock and disorientation occasioned by life in Brasília may be part of its didactic purpose. A city that merely pandered to existing tastes and habits would not be doing its utopian job.

Unplanned Brasília

From the beginning, Brasília failed to go precisely as planned. Its master builders were designing for a new Brazil and for new Brazil-



25. Residential area along Rua Tiradentes in Ouro Preto, 1980



26. A superquadra apartment block in Brasília, 1980

ians—orderly, modern, efficient, and under their discipline. They were thwarted by contemporary Brazilians with different interests and the determination to have them heard. Somehow, it was assumed that the huge workforce (more than sixty thousand strong) would respond to the call to build the city and then quietly leave it to the administrators for whom it was intended. The construction workers, moreover, had not been adequately planned for. Kubitschek accorded top priority to finishing Brasília as quickly as possible. Although most construction laborers routinely worked overtime, the population at the building site quickly outstripped the temporary housing allotted to them in what was called the Free City. They soon squatted on additional land on which they built makeshift houses; in cases where whole families migrated to Brasília (or farmed there), the houses they erected were sometimes quite substantial.

The “pioneers” of Brasília were collectively called “*bandeirantes* of the twentieth century,” after the adventurers who had first penetrated the interior. The label was intended as a compliment, inasmuch as Kubitschek’s Brasília was also a symbolic conquest of the interior in a nation that had historically clung to the shoreline. At the outset, however, the manual laborers attracted to Brasília were derogatorily called *candangos*. A *candango* was “a man without qualities, without culture, a vagabond, lower-class, lowbrow.”⁷⁰ Kubitschek changed that. He used the building of Brasília, which was, after all, devised to transform Brazil, in order to transform the *candangos* into the proletarian heroes of the new nation. “Future interpreters of Brazilian Civilization,” he declared, “must dwell with astonishment before the bronzed rigors of this anonymous titan, who is the *candango*, the obscure and formidable hero of the construction of Brasília. . . . While the skeptics laughed at the intended utopia of the new city that I prepared to build, the *candangos* shouldered the responsibility.”⁷¹ Taking full advantage of the rhetorical space thus provided them, the *candangos* insisted on having their own patch of the utopian city. They organized to defend their land, to demand urban services, and to be given secure title. In the end, by 1980, 75 percent of the population of Brasília lived in settlements that had never been anticipated, while the planned city had reached less than half of its projected population of 557,000. The foothold the poor gained in Brasília was not just a result of the beneficence of Kubitschek and his wife, Doña Sara. Political structure played a key role as well. Squatters were able to mobilize, protest, and be heard by virtue of a reasonably competitive political system. Neither Kubitschek nor other politicians could possibly ignore the opportunity to cultivate a political clientele who might vote as a bloc.

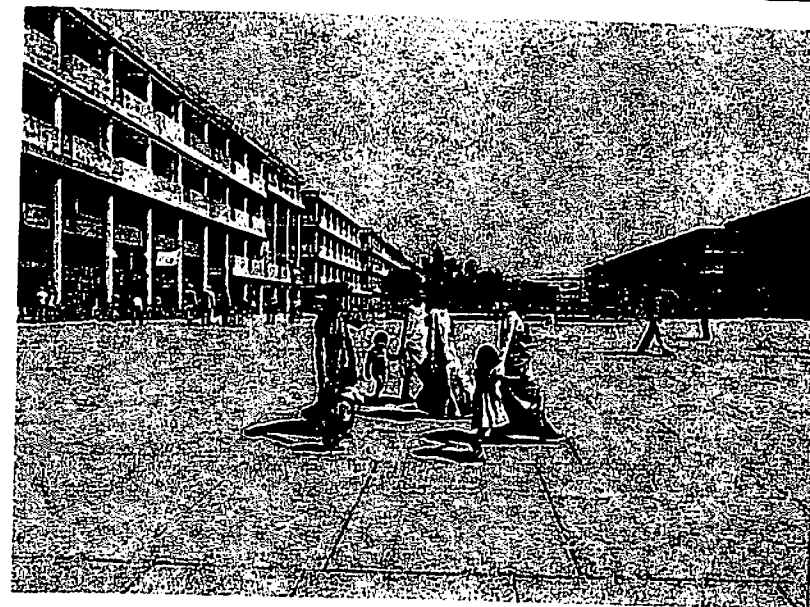
The unplanned Brasília—that is, the real, existing Brasília—was quite different from the original vision. Instead of a classless administrative city, it was a city marked by stark spatial segregation according to social class. The poor lived on the periphery and commuted long distances to the center, where much of the elite lived and worked. Many of the rich also created their own settlements with individual houses and private clubs, thereby replicating the affluent lifestyles found elsewhere in Brazil. The unplanned Brasília—that of the rich and that of the poor—were not merely a footnote or an accident; one could say that the cost of this kind of order and legibility at the center of the plan virtually required that it be sustained by an unplanned Brasília at the margins. The two Brasília's were not just different; they were symbiotic.

Radically transforming an entire nation of Brazil's size and diversity—let alone in only five years—was all but inconceivable. One senses that Kubitschek, like many rulers with great ambitions for their countries, despaired of a direct assault on all Brazil and all Brazilians and turned to the more plausible task of creating from zero a utopian model. Raised on a new site, in a new place, the city would provide a transforming physical environment for its new residents—an environment minutely tailored to the latest dictates regarding health, efficiency, and rational order. As the progressive city would evolve from a unitary, integrated plan on land owned entirely by the state, with all contracts, commercial licenses, and zoning in the hands of the planning agency (Novacap), the conditions seemed favorable for a successful “utopian miniaturization.”

How successful was Brasília as a high-modernist, utopian space? If we judge it by the degree to which it departs from cities in older, urban Brazil, then its success was considerable. If we judge it by its capacity either to transform the rest of Brazil or to inspire a love of the new way of life, then its success was minimal. The real Brasília, as opposed to the hypothetical Brasília in the planning documents, was greatly marked by resistance, subversion, and political calculation.

Le Corbusier at Chandigarh

Since Le Corbusier did not design Brasília, it may seem like guilt by association to blame him for its manifest failings. Two considerations, however, justify the connection. The first is that Brasília was faithfully built according to CIAM doctrines elaborated mostly by Le Corbusier. Second, Le Corbusier did in fact play a major role in designing another capital city that reflected precisely the human problems encountered in Brasília.



27. The *chowk*, or piazza, that Le Corbusier designed for Chandigarh's city center

Chandigarh, the new capital of the Punjab, was half planned when the architect in charge, Matthew Nowicki, suddenly died.⁷² Nehru, in search of a successor, invited Le Corbusier to finish the design and supervise the construction. The choice was in keeping with Nehru's own high-modernist purpose: namely, the promotion of modern technology in a new capital that would dramatize the values that the new Indian elite wished to convey.⁷³ Le Corbusier's modifications of Nowicki's and Albert Mayer's original plan were all in the direction of monumentalism and linearity. In place of large curves, Le Corbusier substituted rectilinear axes. At the center of the capital, he inserted a huge monumental axis not unlike those in Brasília and in his plan for Paris.⁷⁴ In place of crowded bazaars cramming as many goods and people as possible into small spaces, he substituted huge squares that today stand largely empty (figure 27).

Whereas road crossings in India had typically served as public gathering places, Le Corbusier shifted the scale and arranged the zoning in order to prevent animated street scenes from developing. Notes one recent observer: "On the ground, the scale is so large and the width between meeting streets so great that one sees nothing but vast stretches of concrete paving with a few lone figures here and there. The small-scale street trader, the hawker or the rehri (barrows) have

been banned from the city center, so that even where sources of interest and activity could be included, if only to reduce the concreted barrenness and authority of the *chowk*, these are not utilized."⁷⁵

As in Brasília, the effort was to transcend India as it existed and to present Chandigarh's citizens—largely administrators—with an image of their own future. As in Brasília, the upshot was another unplanned city at the periphery and the margins, one that contradicted the austere order at the center.

The Case Against High-Modernist Urbanism: Jane Jacobs

Jane Jacobs's book *The Death and Life of Great American Cities* was written in 1961 against a high tide of modernist, functional urban planning. Hers was by no means the first criticism of high-modernist urbanism, but it was, I believe, the most carefully observed and intellectually grounded critique.⁷⁶ As the most comprehensive challenge to contemporary doctrines of urban planning, it sparked a debate, the reverberations of which are still being felt. The result, some three decades later, has been that many of Jacobs's views have been incorporated into the working assumptions of today's urban planners. Although what she called her "attack on current city planning and rebuilding" was concerned primarily with American cities, she located Le Corbusier's doctrines, as applied abroad and at home, at the center of her field of fire.

What is remarkable and telling about Jacobs's critique is its unique perspective. She begins at street level, with an ethnography of micro-order in neighborhoods, sidewalks, and intersections. Where Le Corbusier "sees" his city initially from the air, Jacobs sees her city as a pedestrian on her daily rounds would. Jacobs was also a political activist involved in many campaigns against proposals for zoning changes, road building, and housing development that she thought ill-advised.⁷⁷ It was all but inconceivable that a radical critique, grounded in this fashion, could ever have originated from within the intellectual circle of urban planners.⁷⁸ Her novel brand of everyday urban sociology applied to the design of cities was simply too far removed from the orthodox educational routines of urban planning schools at the time.⁷⁹ An examination of her critique from the margins serves to underline many of the failings of high modernism.

Visual Order Versus Experienced Order

A formative insight in Jacobs's argument is that there is no necessary correspondence between the tidy look of geometric order on one hand and systems that effectively meet daily needs on the other. Why should we expect, she asks, that well-functioning built environments or social arrangements will satisfy purely visual notions of order and regularity? To illustrate the conundrum, she refers to a new housing project in East Harlem that sported, conspicuously, a rectangular lawn. The lawn was the object of general contempt by the residents. It was even taken as an insult by those who had been forcibly relocated and now lived in a project among strangers where it was impossible to get a newspaper or a cup of coffee or to borrow fifty cents.⁸⁰ The apparent order of the lawn seemed cruelly emblematic of a more keenly felt disorder.

A fundamental mistake that urban planners made, Jacobs claims, was to infer *functional* order from the duplication and regimentation of building forms: that is, from purely visual order. Most complex systems, on the contrary, do not display a surface regularity; their order must be sought at a deeper level. "To see complex systems of functional order as order, and not as chaos, takes understanding. The leaves dropping from the trees in the autumn, the interior of an airplane engine, the entrails of a rabbit, the city desk of a newspaper, all appear to be chaos if they are seen without comprehension. Once they are seen as systems of order, they actually look different." At this level one could say that Jacobs was a "functionalist," a word whose use was banned in Le Corbusier's studio. She asked, What function does this structure serve, and how well does it serve it? The "order" of a thing is determined by the purpose it serves, not by a purely aesthetic view of its surface order.⁸¹ Le Corbusier, by contrast, seemed to have firmly believed that the most efficient forms would *always* have a classical clarity and order. The physical environments Le Corbusier designed and built had, as did Brasília, an overall harmony and simplicity of form. For the most part, however, they failed in important ways as places where people would want to live and work.

It was this failure of the general urban planning models that so preoccupied Jacobs. The planners' conception of a city accorded neither with the actual economic and social functions of an urban area nor with the (not unrelated) individual needs of its inhabitants. Their most fundamental error was their entirely aesthetic view of order. This error drove them to the further error of rigidly segregating func-

tions. In their eyes, mixed uses of real estate—say, stores intermingled with apartments, small workshops, restaurants, and public buildings—created a kind of visual disorder and confusion. The great advantage of single uses—one shopping area, one residential area—was that it made possible the monofunctional uniformity and visual regimentation that they sought. As a planning exercise, it was of course vastly easier to plan an area zoned for a single use than one zoned for several. Minimizing the number of uses and hence the number of variables to be juggled thus combined with an aesthetic of visual order to argue for a single-use doctrine.⁸² The metaphor that comes to mind in this connection is that of an army drawn up on the parade ground as opposed to an army engaged in combat with the enemy. In the first case is a tidy visual order created by units and ranks drawn up in straight lines. But it is an army doing nothing, an army on display. An army at war will not display the same orderly arrangement, but it will be, in Jacobs's terms, an army doing what it was trained to do. Jacobs thinks she knows the roots of this penchant for abstract, geometric order from above: "Indirectly through the utopian tradition, and directly through the more realistic doctrine of art by imposition, modern city planning has been burdened from its beginnings with the unsuitable aim of converting cities into disciplined works of art."⁸³

Recently, Jacobs notes, the statistical techniques and input-output models available to planners had become far more sophisticated. They were encouraged to attempt such ambitious feats of planning as massive slum clearance now that they could closely calculate the budget, materials, space, energy, and transportation needs of a rebuilt area. These plans continued to ignore the social costs of moving families "like grains of sand, or electrons, or billiard balls."⁸⁴ The plans were also based on notoriously shaky assumptions, and they treated systems of complex order as if they could be simplified by numerical techniques, regarding shopping, for example, as a purely mathematical issue involving square footage for shopping space and traffic management as an issue of moving a certain number of vehicles in a given time along a certain number of streets of a given width. These were indeed formidable technical problems, but, as we shall see, the real issues involved much more besides.

The Functional Superiority of Cross-Use and Complexity

The establishment and maintenance of social order in large cities are, as we have increasingly learned, fragile achievements. Jacobs's

view of social order is both subtle and instructive. *Social* order is not the result of the architectural order created by T squares and slide rules. Nor is social order brought about by such professionals as policemen, nightwatchmen, and public officials. Instead, says Jacobs, "the public peace—the sidewalk and street peace—of cities . . . is kept by an intricate, almost unconscious network of voluntary controls and standards among the people themselves, and enforced by the people themselves." The necessary conditions for a safe street are a clear demarcation between public space and private space, a substantial number of people who are watching the street on and off ("eyes on the street"), and fairly continual, heavy use, which adds to the quantity of eyes on the street.⁸⁵ Her example of an area where these conditions were met is Boston's North End. Its streets were thronged with pedestrians throughout the day owing to the density of convenience and grocery stores, bars, restaurants, bakeries, and other shops. It was a place where people came to shop and stroll and to watch others shop and stroll. The shopkeepers had the most direct interest in watching the sidewalk: they knew many people by name, they were there all day, and their businesses depended on the neighborhood traffic. Those who came and went on errands or to eat or drink also provided eyes on the street, as did the elderly who watched the passing scene from their apartment windows. Few of these people were friends, but a good many were acquaintances who did recognize one another. The process is powerfully cumulative. The more animated and busier the street, the more interesting it is to watch and observe; all these unpaid observers who have some familiarity with the neighborhood provide willing, informed surveillance.

Jacobs recounts a revealing incident that occurred on her mixed-use street in Manhattan when an older man seemed to be trying to cajole an eight- or nine-year-old girl to go with him. As Jacobs watched this from her second-floor window, wondering if she should intervene, the butcher's wife appeared on the sidewalk, as did the owner of the deli, two patrons of a bar, a fruit vendor, and a laundryman, and several other people watched openly from their tenement windows, ready to frustrate a possible abduction. No "peace officer" appeared or was necessary.⁸⁶

Another instance of informal urban order and services is instructive. Jacobs explains that when a friend used their apartment while she and her husband were away or when they didn't want to wait up for a late-arriving visitor, they would leave the key to their apartment with the deli owner, who had a special drawer for such keys and who held them for the friends.⁸⁷ She noted that every nearby mixed-use street had

someone who played the same role: a grocer, candy-store owner, barber, butcher, dry cleaner, or bookshop owner. This is one of the many public functions of private business.⁸⁸ These services, Jacobs notes, are not the outgrowth of any deep friendship; they are the result of people being on what she calls "sidewalk terms" with others. And these are services that could not plausibly be provided by a public institution. Having no recourse to the face-to-face politics of personal reputation that underwrites social order in small rural communities, the city relies on the density of people who are on sidewalk terms with one another to maintain a modicum of public order. The web of familiarity and acquaintanceship enabled a host of crucial but often invisible public amenities. A person didn't think twice about asking someone to hold one's seat at the theater, to watch a child while one goes to the restroom, or to keep an eye on a bike while one ducks into a deli to buy a sandwich.

Jacobs's analysis is notable for its attention to the microsociology of public order. The agents of this order are all nonspecialists whose main business is something else. There are no formal public or voluntary organizations of urban order here—no police, no private guards or neighborhood watch, no formal meetings or officeholders. Instead, the order is embedded in the logic of daily practice. What's more, Jacobs argues, the formal public institutions of order function successfully *only* when they are undergirded by this rich, informal public life. An urban space where the police are the sole agents of order is a very dangerous place. Jacobs admits that each of the small exchanges of informal public life—nodding hello, admiring a newborn baby, asking where someone's nice pears come from—can be seen as trivial. "But the sum is not trivial at all," she insists. "The sum of each casual, public contact at a local level—most of it fortuitous, most of it associated with errands, all of it metered by the person concerned and not thrust upon him by anyone—is a feeling for the public identity of people, a web of public respect and trust, and a resource in time of personal or neighborhood need. The absence of this trust is a disaster to a city street. Its cultivation cannot be institutionalized. And above all, *it implies no private commitments.*"⁸⁹ Where Le Corbusier began with formal, architectural order from above, Jacobs begins with informal, social order from below.

Diversity, cross-use, and complexity (both social and architectural) are Jacobs's watchwords. The mingling of residences with shopping areas and workplaces makes a neighborhood more interesting, more convenient, and more desirable—qualities that draw the foot traffic

that in turn makes the streets relatively safe. The whole logic of her case depends on the creation of the crowds, diversity, and conveniences that define a setting where people will want to be. In addition, a high volume of foot traffic stimulated by an animated and colorful neighborhood has economic effects on commerce and property values, which are hardly trivial. The popularity of a district and its economic success go hand in hand. Once created, such places will attract activities that most planners would have specially sequestered elsewhere. Rather than play in the large parks created for that purpose, many children prefer the sidewalks, which are safer, more eventful, and more convenient to the comforts available in stores and at home.⁹⁰ Understanding the magnetic effect of the busy street over more specialized settings is no more difficult than understanding why the kitchen is typically the busiest room in a house. It is the most versatile setting—a place of food and drink, of cooking and eating, and hence of socialization and exchange.⁹¹

What are the conditions of this diversity? That a district have mixed primary uses, Jacobs suggests, is the most vital factor. Streets and blocks should be short in order to avoid creating long barriers to pedestrians and commerce.⁹² Buildings should ideally be of greatly varying age and condition, thereby making possible different rental terms and the varied uses that accompany them. Each of these conditions, not surprisingly, violates one or more of the working assumptions of orthodox urban planners of the day: single-use districts, long streets, and architectural uniformity. Mixed primary uses, Jacobs explains, are synergistic with diversity and density.

Take, for example, a small restaurant in a single-use district—say, the financial district of Wall Street. Such a restaurant must make virtually all its profit between 10 A.M. and 3 P.M., the hours when office workers take their midmorning coffee breaks and lunch breaks before commuting home at the end of the day, leaving the street silent. The restaurant in a mixed-use district, on the other hand, has potential clients passing by throughout the day and into the night. It may therefore stay open for more hours, benefiting not only its own business but also that of nearby specialized shops, which might be economically marginal in a single-use district but which become going concerns in a lively mixed-use area. The very jumble of activities, buildings, and people—the apparent *disorder* that offended the aesthetic eye of the planner—was for Jacobs the sign of dynamic vitality: "Intricate minglings of different uses are not a form of chaos. On the contrary they represent a complex and highly developed form of order."⁹³

While Jacobs makes a convincing case for mixed use and complexity by examining the micro-origins of public safety, civic trust, visual interest, and convenience, there is a larger argument to be made for cross-use and diversity. Like the diverse old-growth forest, a richly differentiated neighborhood with many kinds of shops, entertainment centers, services, housing options, and public spaces is, virtually by definition, a more resilient and durable neighborhood. Economically, the diversity of its commercial "bets" (everything from funeral parlors and public services to grocery stores and bars) makes it less vulnerable to economic downturns. At the same time its diversity provides many opportunities for economic growth in upturns. Like monocropped forests, single-purpose districts, although they may initially catch a boom, are especially susceptible to stress. The diverse neighborhood is more sustainable.

I think that a "woman's eye," for lack of a better term, was essential to Jacobs's frame of reference. A good many men, to be sure, were insightful critics of high-modernist urban planning, and Jacobs refers to many of their writings. Nevertheless, it is difficult to imagine her argument being made in quite the same way by a man. Several elements of her critique reinforce this impression. First, she experiences the city as far more than a setting for the daily trek to and from work and the acquisition of goods and services. The eyes with which she sees the street are, by turns, those of shoppers running errands, mothers pushing baby carriages, children playing, friends having coffee or a bite to eat, lovers strolling, people looking from their windows, shopkeepers dealing with customers, old people sitting on park benches.⁹⁴ Work is not absent from her account, but her attention is riveted on the quotidian in the street as it appears around work and outside of work. A concern with public space puts both the interior of the home and the office as factory outside her purview. The activities that she observes so carefully, from taking a walk to window-shopping, are largely activities that do not have a single purpose or that have no conscious purpose in the narrow sense.

Compare this perspective with most of the key elements in high-modernist urban planning. Such plans all but require forms of simplification that strip human activity to a sharply defined single purpose. In orthodox planning, such simplifications underlie the strict functional segregation of work from domicile and both from commerce. The matter of transportation becomes, for Le Corbusier and others, the single problem of how to transport people (usually in automobiles) as quickly and economically as possible. The activity of shopping becomes a question of providing adequate floor space and access

for a certain quantity of shoppers and goods. Even the category of entertainment was split up into specified activities and segregated into playgrounds, athletic fields, theaters, and so on.

Thus, the second result of Jacobs's having a woman's eye is her realization that a great deal of human activity (including, by all means, work) is pursued for a wide range of goals and satisfactions. An amiable lunch with co-workers may be the most significant part of the day for a jobholder. Mothers pushing baby carriages may also be talking to friends, doing errands, getting a bite to eat, and looking for a book at the local bookstore or library. In the course of these activities, still another "purpose" might arise, unbidden. The man or woman driving to work may not just be driving to work. He or she may care about the scenery or companionship along the way and the availability of coffee near the parking lot. Jacobs herself was an enormously gifted "eye on the street," and she wrote in full recognition of the great variety of human purposes embedded in any activity. The purpose of the city is to accommodate and abet this rich diversity and not to thwart it. And the persistent failure of urban-planning doctrines to do so, she suggested, had something to do with gender.⁹⁵

Authoritarian Planning as Urban Taxidermy

For Jacobs, the city as a social organism is a living structure that is constantly changing and springing surprises. Its interconnections are so complex and dimly understood that planning always risks unknowingly cutting into its living tissue, thereby damaging or killing vital social processes. She contrasts the "art" of the planner to the practical conduct of daily life: "*A city cannot be a work of art. . . . In relation to the inclusiveness and literally endless intricacy of life, art is arbitrary, symbolic, and abstracted. That is its value and the source of its own kind of order and coherence. . . . The results of such profound confusion between art and life are neither life nor art. They are taxidermy. In its place, taxidermy can be a useful and decent craft. However, it goes too far when the specimens put on display are exhibitions of dead, stuffed cities.*"⁹⁶ The core of Jacobs's case against modern city planning was that it placed a static grid over this profusion of unknowable possibilities. She condemned Ebenezer Howard's vision of the garden city because its planned segregation presumed that farmers, factory workers, and businessmen would remain fixed and distinct castes. Such a presumption failed to respect or provide for the "spontaneous self-diversification" and fluidity that were the main features of the nineteenth-century city.⁹⁷

Urban planners' great penchant for massive schemes of slum clearance was attacked on the same grounds. Slums were the first foothold of poor migrants to the city. As long as these areas were reasonably stable, the economy relatively strong, and people and businesses not starved for credit, the slums could, given time, manage to "unslum" themselves. Many already had. Planners frequently destroyed "unslumming slums" because these areas violated their doctrines of "layout, use, ground coverage, mixture and activities"⁹⁸—not to mention the land speculation and security concerns behind much "urban renewal."

From time to time Jacobs stands back from the infinite and changing variety of American cities to express a certain awe and humility: "Their intricate order—a manifestation of the freedom of countless numbers of people to make and carry out countless plans—is in many ways a great wonder. We ought not to be reluctant to make this living collection of interdependent uses, this freedom, this life, more understandable for what it is, nor so unaware that we do not know what it is."⁹⁹ The magisterial assumption behind the doctrines of many urban planners—that they know what people want and how people should spend their time—seems to Jacobs shortsighted and arrogant. They assumed, or at least their plans assumed, that people preferred open spaces, visual (zoned) order, and quiet. They assumed that people wanted to live in one place and work in another. Jacobs believes they were mistaken, and most important, she is prepared to argue from close daily observation at street level rather than stipulating human wishes from above.

The logic behind the spatial segregation and single-use zoning of the urban planners that Jacobs criticized was at once aesthetic, scientific, and practical. As an aesthetic matter, it led to the visual regularity—even regimentation—that a sculptural view of the ensemble required. As a scientific matter it reduced the number of unknowns for which the planner had to find a solution. Like simultaneous equations in algebra, too many unknowns in urban planning rendered any solution problematic or else required heroic assumptions. The problem the planner faced was analogous to that of the forester. One modern solution to the forester's dilemma was to borrow a management technique called optimum control theory, whereby the sustained timber yield could be successfully predicted by few observations and a parsimonious formula. It goes without saying that optimum control theory was simplest where more variables could be turned into constants. Thus a single-species, same-age forest planted in straight lines on a flat plain with consistent soil and moisture profiles yielded simpler and more accu-

rate optimum control formulas. Compared to uniformity, diversity is always more difficult to design, build, and control. When Ebenezer Howard approached town planning as a simple, two-variable problem of relating housing needs to the quantity of jobs in a closed system, he was both temporally and functionally operating "scientifically" within those self-imposed limits. Formulas for green space, light, schools, and square meters per capita did the rest.

In urban planning as in forestry, it is a short step from parsimonious assumptions to the practice of shaping the environment so that it satisfies the simplifications required by the formula. The logic of planning for the shopping needs of a given population serves as an example. Once planners applied the formula for a certain number of square feet of commercial space, parceled out among such categories as food and clothing, they realized that they would then have to make these shopping centers monopolistic within their areas, lest nearby competitors draw away their clientele. The whole point was to legislate the formula, thereby guaranteeing the shopping center a monopoly of its catchment area.¹⁰⁰ Rigid, single-use zoning is, then, not just an aesthetic measure. It is an indispensable aid to scientific planning, and it can also be used to transform formulas posing as observations into self-fulfilling prophecies.

The radically simplified city, provided it is viewed from above, is also practical and efficient. The organization of services—electricity, water, sewage, mail—is simplified both below and above ground. Single-use districts, by virtue of the repetition of functionally similar apartments or offices, are simpler to produce and build. Le Corbusier looked forward to a future when all the components of such buildings would be industrially prefabricated.¹⁰¹ Zoning along these lines also produces a city that is, district by district, both more uniform aesthetically and more "orderly" functionally. A single activity or narrow band of activities is appropriate to each district: work in the business district, family life in the residential quarter, shopping and entertainment in the commercial district. As a police matter, this functional segregation minimizes unruly crowds and introduces as much regimentation into the movement and conduct of the population as physical planning alone can encourage.

Once the desire for comprehensive urban planning is established, the logic of uniformity and regimentation is well-nigh inexorable. Cost effectiveness contributes to this tendency. Just as it saves a prison trouble and money if all prisoners wear uniforms of the same material, color, and size, every concession to diversity is likely to entail a corre-

sponding increase in administrative time and budgetary cost. If the planning authority does not need to make concessions to popular desires, the one-size-fits-all solution is likely to prevail.¹⁰²

Against the planners' eye and formulas, Jacobs juxtaposes her own. Her aesthetic, she would claim, is pragmatic and street level, an aesthetic that has as its reference the experienced working order of the city for the people who live there. She asks, What physical environments draw people, facilitate circulation, promote social exchange and contact, and satisfy both utilitarian and nonutilitarian needs? This perspective leads her to many judgments. Short blocks are preferable to long blocks because they knit together more activities. Large truck depots or filling stations that break the continuity of pedestrian interest are to be avoided. To be kept to a minimum are huge roads and vast, forbidding open spaces that operate as visual and physical barriers. There is a logic here, but it is not an a priori visual logic, nor is it a purely utilitarian logic narrowly conceived. Rather, it is a standard of evaluation that springs from how satisfactorily a given arrangement meets the social and practical desires of urban dwellers as those needs are revealed in their actual activity.

Planning for the Unplanned

The historic diversity of the city—the source of its value and magnetism—is an unplanned creation of many hands and long historical practice. Most cities are the outcome, the vector sum, of innumerable small acts bearing no discernible overall intention. Despite the best efforts of monarchs, planning bodies, and capitalist speculators, “most city diversity is the creation of incredible numbers of different people and different private organizations, with vastly different ideas and purposes, planning and contriving outside the formal framework of public action.”¹⁰³ Le Corbusier would have agreed with this description of the existing city, and it was precisely what appalled him. It was just this cacophony of intentions that was responsible for the clutter, ugliness, disorder, and inefficiencies of the unplanned city. Looking at the same social and historical facts, Jacobs sees reason to praise them: “Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody.”¹⁰⁴ She is no free-market libertarian, however; she understands clearly that capitalists and speculators are, willy-nilly, transforming the city with their commercial muscle and political influence. But when it comes to urban public policy, she thinks planning ought not to usurp this unplanned city: “The main responsibility of city planning and design should be to

develop, insofar as public policy and action can do so, cities that are congenial places for this great range of unofficial plans, ideas, and opportunities to flourish.”¹⁰⁵ Whereas Le Corbusier's planner is concerned with the overall form of the cityscape and its efficiency in moving people from point to point, Jacobs's planner consciously makes room for the unexpected, small, informal, and even nonproductive human activities that constitute the vitality of the “lived city.”

Jacobs is more aware than most urban planners of the ecological and market forces continually transforming the city. The succession of harbors, railroads, and highways as means of moving people and goods had already marked the rise and decline of sections of the city. Even the successful, animated neighborhoods that Jacobs so prizes were, she recognizes, becoming victims of their own success. Areas were “colonized” by urban migrants because land values, and hence rents, were cheap. As an area became more desirable to live in, its rents rose and its local commerce changed, the new businesses often driving out the original pioneers who had helped transform it. The nature of the city was flux and change; a successful neighborhood could not be frozen and preserved by the planners. A city that was extensively planned would inevitably diminish much of the diversity that is the hallmark of great towns. The best a planner can hope for is to modestly enhance rather than impede the development of urban complexity.

For Jacobs, how a city develops is something like how a language evolves. A language is the joint historical creation of millions of speakers. Although all speakers have some effect on the trajectory of a language, the process is not particularly egalitarian. Linguists, grammarians, and educators, some of them backed by the power of the state, weigh in heavily. But the process is not particularly amenable to a dictatorship, either. Despite the efforts toward “central planning,” language (especially its everyday spoken form) stubbornly tends to go on its own rich, multivalent, colorful way. Similarly, despite the attempts by urban planners toward designing and stabilizing the city, it escapes their grasp; it is always being reinvented and inflected by its inhabitants.¹⁰⁶ For both a large city and a rich language, this openness, plasticity, and diversity allow them to serve an endless variety of purposes—many of which have yet to be conceived.

The analogy can be pressed further. Like planned cities, planned languages are indeed possible. Esperanto is one example; technical and scientific languages are another, and they are quite precise and powerful means of expression within the limited purposes for which they were designed. But language per se is not for only one or two purposes. It is a general tool that can be bent to countless ends by virtue of

its adaptability and flexibility. The very history of an inherited language helps to provide the range of associations and meanings that sustain its plasticity. In much the same way, one could plan a city from zero. But since no individual or committee could ever completely encompass the purposes and lifeways, both present and future, that animate its residents, it would necessarily be a thin and pale version of a complex city with its own history. It will be a Brasília, Saint Petersburg, or Chandigarh rather than a Rio de Janeiro, Moscow, or Calcutta. Only time and the work of millions of its residents can turn these thin cities into thick cities. The grave shortcoming of a planned city is that it not only fails to respect the autonomous purposes and subjectivity of those who live in it but also fails to allow sufficiently for the contingency of the interaction between its inhabitants and what that produces.

Jacobs has a kind of informed respect for the novel forms of social order that emerge in many city neighborhoods. This respect is reflected in her attention to the mundane but meaningful human connections in a functioning neighborhood. While recognizing that no urban neighborhood can ever be, or should be, static, she stresses the minimal degree of continuity, social networks, and "street-terms" acquaintanceship required to knit together an urban locality. "If self-government in the place is to work," she muses, "underlying any float of population must be a continuity of people who have forged neighborhood networks. These networks are a city's irreplaceable social capital. Whenever the capital is lost, from whatever cause, the [social] income from it disappears, never to return until and unless new capital is slowly and chancily accumulated."¹⁰⁷ It follows from this vantage point that even in the case of slums, Jacobs was implacably opposed to the wholesale slum-clearance projects that were so much in vogue when she was writing. The slum might not have much social capital, but what it did have was something to build on, not destroy.¹⁰⁸ What keeps Jacobs from becoming a Burkean conservative, celebrating whatever history has thrown up, is her emphasis on change, renewal, and invention. To try to arrest this change (although one might try to modestly influence it) would be not only unwise but futile.

Strong neighborhoods, like strong cities, are the product of complex processes that cannot be replicated from above. Jacobs quotes with approval Stanley Tankel, a planner who made the rarely heard case against large-scale slum clearance in these terms: "The next step will require great humility, since we are now so prone to confuse great building projects with great social achievements. We will have to admit that it is beyond the scope of anyone's imagination to create a community. We must learn to cherish the communities we have, they are hard

to come by. 'Fix the buildings, but leave the people.' 'No relocation outside the neighborhood.' These must be the slogans if public housing is to be popular."¹⁰⁹ In fact, the political logic of Jacobs's case is that while the planner cannot create a functioning community, a functioning community can, within limits, improve its own condition. Standing the planning logic on its head, she explains how a reasonably strong neighborhood can, in a democratic setting, fight to create and maintain good schools, useful parks, vital urban services, and decent housing.

Jane Jacobs was writing against the major figures still dominating the urban planning landscape of her day: Ebenezer Howard and Le Corbusier. To some of her critics she has seemed a rather conservative figure, extolling the virtues of community in poor neighborhoods that many were anxious to leave and ignoring the degree to which the city was already being "planned," not by popular initiative or by the state but by developers and financiers with political connections. There is some justice to these points of view. For our purposes, however, there is little doubt that she has put her finger on the central flaws of hubris in high-modernist urban planning. The first flaw is the presumption that planners can safely make most of the predictions about the future that their schemes require. We know enough by now to be exceptionally skeptical about forecasting from current trends in fertility rates, urban migration, or the structure of employment and income. Such predictions have often been wildly wrong. As for wars, oil embargoes, weather, consumer tastes, and political eruptions, our capacity for prediction is practically nil. Second, thanks in part to Jacobs, we now know more about what constitutes a satisfactory neighborhood for the people who live in it, but we still know precious little about how such communities can be fostered and maintained. Working from formulas about density, green space, and transportation may produce narrowly efficient outcomes, but it is unlikely to result in a desirable place to live. Brasília and Chandigarh, at a minimum, demonstrate this.

It is not a coincidence that many of the high-modernist cities actually built—Brasília, Canberra, Saint Petersburg, Islamabad, Chandigarh, Abuja, Dodoma, Ciudad Guayana¹¹⁰—have been administrative capitals. Here at the center of state power, in a completely new setting, with a population consisting largely of state employees who have to reside there, the state can virtually stipulate the success of its planning grid. The fact that the business of the city is state administration already vastly simplifies the task of planning. Authorities do not have to contend, as did Haussmann, with preexisting commercial and cultural centers. And because the authorities control the instruments of zoning, employment, housing, wage levels, and physical layout, they can bend

the environment to the city. These urban planners backed by state power are rather like tailors who are not only free to invent whatever suit of clothes they wish but also free to trim the customer so that he fits the measure.

Urban planners who reject "taxidermy," Jacobs claims, must nevertheless invent a kind of planning that encourages novel initiatives and contingencies, foreclosing as few options as possible, and that fosters the circulation and contact out of which such initiatives arise. To illustrate the diversity of urban life, Jacobs lists more than a dozen uses which have been served over the years by the center for the arts in Louisville: stable, school, theater, bar, athletic club, blacksmith's forge, factory, warehouse, artists' studio. She then asks, rhetorically, "Who could anticipate or provide for such a succession of hopes and services?" Her answer is simple: "Only an unimaginative man would think he could; only an arrogant man would want to."¹¹

5 The Revolutionary Party: A Plan and a Diagnosis

Feeling, Comrade C, is a mass element, but thought is organization. Comrade Lenin said that organization is the highest of all of us.

—Andrei Platonov, *Chevengur*

Communism was modernity's most devout, vigorous and gallant champion. . . . It was under communist . . . auspices that the audacious dream of modernity, freed from obstacles by the merciless and omnipotent state, was pushed to its radical limits: grand designs, unlimited social engineering, huge and bulky technology, total transformation of nature.

—Zygmunt Bauman, *Living Without an Alternative*

Lenin's design for the construction of the revolution was in many ways comparable to Le Corbusier's design for the construction of the modern city. Both were complex endeavors that had to be entrusted to the professionalism and scientific insight of a trained cadre with full power to see the plan through. And just as Le Corbusier and Lenin shared a broadly comparable high modernism, so Jane Jacobs's perspective was shared by Rosa Luxemburg and Aleksandra Kollontay, who opposed Lenin's politics. Jacobs doubted both the possibility and the desirability of the centrally planned city, and Luxemburg and Kollontay doubted the possibility and desirability of a revolution planned from above by the vanguard party.

Lenin: Architect and Engineer of Revolution

Lenin, if we judge him from his major writings, was a convinced high modernist. The broad lines of his thought were quite consistent; whether he was writing about revolution, industrial planning, agricultural organization, or administration, he focused on a unitary scientific answer that was known to a trained intelligentsia and that ought to be followed. The Lenin of practice was, of course, something else again. His capacity for sensing the popular mood in fashioning Bolshevik propaganda, for beating a tactical retreat when it seemed prudent, and for striking boldly to seize the advantage was more relevant than his high modernism to his success as a revolutionary. It is Lenin as a high modernist, however, with whom we are primarily concerned.