# 5

# PROGRAMMING THE
# *VILLES NOUVELLES*

From the 1960s on, the approach will change. The necessity to conceive of the city in its totality is increasingly pressing: each large new operation needs to be studied and built according to a conception of the urban development as a whole. Furthermore, what is at stake is no longer only to house the inhabitants, but also to create their everyday environment: the *grands ensembles* show the inconveniences of an urbanism lacking in good architecture and in facilities for local social life. This orientation leads to an urbanism of New Towns.[1]

WHEN THE POLITICAL SCIENTIST PIERRE VIOT sketched this evolution in 1969, he had Charles de Gaulle's official *villes nouvelles* or New Towns project in mind. Launched in 1965, two decades after the first British New Towns, the project was closely tied to a new master plan for the capital called the Schéma directeur d'aménagement et d'urbanisme de la région de Paris. This plan resolutely abandoned what was called the "Malthusianism" of earlier plans—the acceptance of a relatively fixed footprint limiting urban development (Plate 8).[2] Instead of decongesting the center and densifying the suburbs, planners felt they needed above all to facilitate economic development and accommodate exponential urban growth far beyond the bounds of the existing city. The massive economic and demographic growth that had thoroughly reshaped the Paris region in the two decades since World War II was extrapolated into the long-term future: by the year 2000 Paris would count no less than fourteen million inhabitants and would double its existing footprint, planners contended. The plan was characteristic of the optimism of the 1960s but also of the leadership of Paul Delouvrier, the charismatic "man of action" who at the side of de Gaulle was to modernize the nation and give it back the grandeur it deserved.[3]

To accommodate such unprecedented urban growth, Delouvrier and his team needed a new approach, one that could envision "the city in its totality," from the concreteness of the everyday to the abstract structure of the urban territory at large. Motivated by the desire to break with the monotonous scale of the *grands ensembles* as well as with the capital's "suffocating" radio-concentric structure, their strategy was to channel future urban growth along two major "preferential axes." On these axes large New Towns could then be developed to absorb anticipated growth (Figure 5.1). Compared to existing urban development such as Sarcelles or Toulouse-le-Mirail, and to the British New Towns, the *villes nouvelles* would be up to five or even ten times the size.[4] Above all, they needed to be "real cities" rather than bedroom suburbs. With the ambition of an all-encompassing approach to people's "cadre de vie" (living environment),
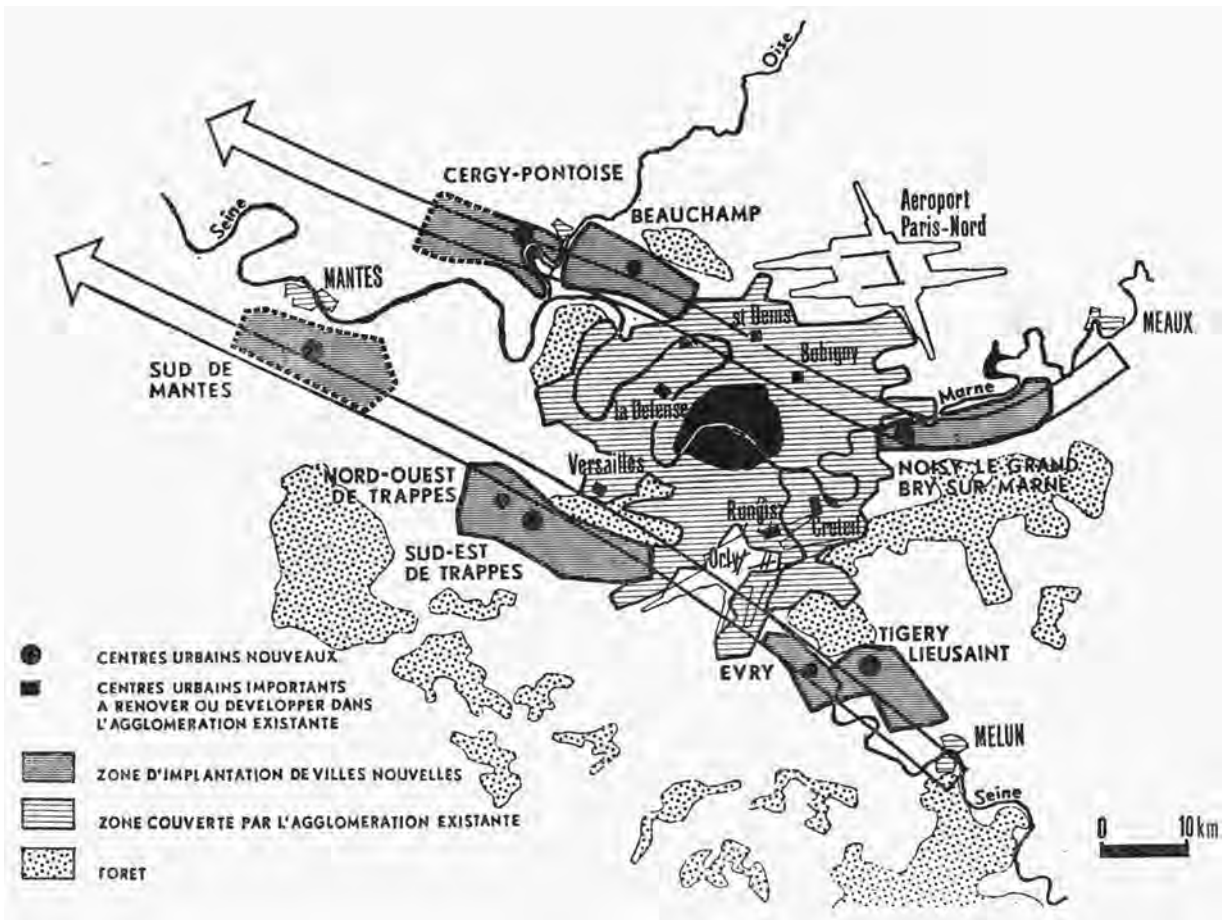


Figure 5.1. The two preferential axes for Paris guide the location of the New Towns in a diagram based on the 1965 regional plan. Ultimately, five New Towns will emerge from this initial plan: Cergy-Pontoise, Évry, Trappes, Marne-la-Vallée (initially called Noisy-le-Grand/Bry-sur-Marne), and Melun-Senart (initially called Tigery-Lieusaint). From Pierre Merlin, *Les villes nouvelles* (Paris: Presses Universitaires de France, 1969), 262.

planners promised a dramatically new way of city building. Up until then, New Towns internationally had been shaped essentially by an antiurban ideal—from the Anglo-American suburban communities inspired by Howard's garden city to the Russian plans for remotely located New Towns around heavy industries. In the eyes of French planners, this antiurban agenda applied even to the tabula rasa condition and vast empty spaces of Brasília and Chandigarh. Locating many of their *villes nouvelles* in or close to existing suburbanized areas, French planners faced an almost opposite challenge. In order to effectively decentralize the capital and the nation, these suburbs would have to be infused with an urbanity of their own. But how could such urban character be created? If, as Viot suggested, housing had proven insufficient and the *grands ensembles* were now the problem more than the solution for urban France, what tools, programs, or methods could be used to produce urbanity itself? If the city was made up of more than the four functions postulated by interwar modernists, how could its complexity, diversity, and dynamism be developed from the drafting board?

## New Cities, New Questions

In the gulf of ambition and expectation accompanying the *villes nouvelles* project, one thing was clear to those in charge: existing models and methods were by definition insufficient. Inhabitants, journalists, and other observers had long rung the alarm bell about the monotony of social life in many new housing estates and the lack of urban amenities in the suburbs more generally. The *villes nouvelles* planners agreed and pointed their fingers univocally at the *grands ensembles*—even if some had been designed explicitly to facilitate social life and inhabitant participation. It was an easy blame to place. While the *villes nouvelles* were just as much a product of state intervention, they were the work of a different set of government actors and institutions. Instead of HLM organizations or public development companies that tended to commission Prix de Rome architects for housing projects guided by the technical norms of the Ministry of Construction, the *villes nouvelles* were developed by a new type of planning team. These teams would be locally installed but guided by centralized think tanks, including the Central Group of New Towns (Groupe central des villes nouvelles) and Delouvrier's Institut d'urbanisme et de l'aménagement de la région parisienne (IAURP, or Institute for Urbanism and Planning of the Paris Region). Because of their distance from the bureaucratic production of the *grands ensembles*, the *villes nouvelles* planners were quick to dismiss these "unorganized" and "underequipped" developments as being no more than bedroom suburbs that had made "comprehensive planning" impossible (Figure 5.2).[5] Newspapers reported that "to repeat Sarcelles" was people's number one fear, and planners were well aware of this.[6]

   The *villes nouvelles* would thus be shaped in direct relationship to the *grands ensembles*—albeit primarily in opposition to their perceived failures. If the *grand ensemble* was the city
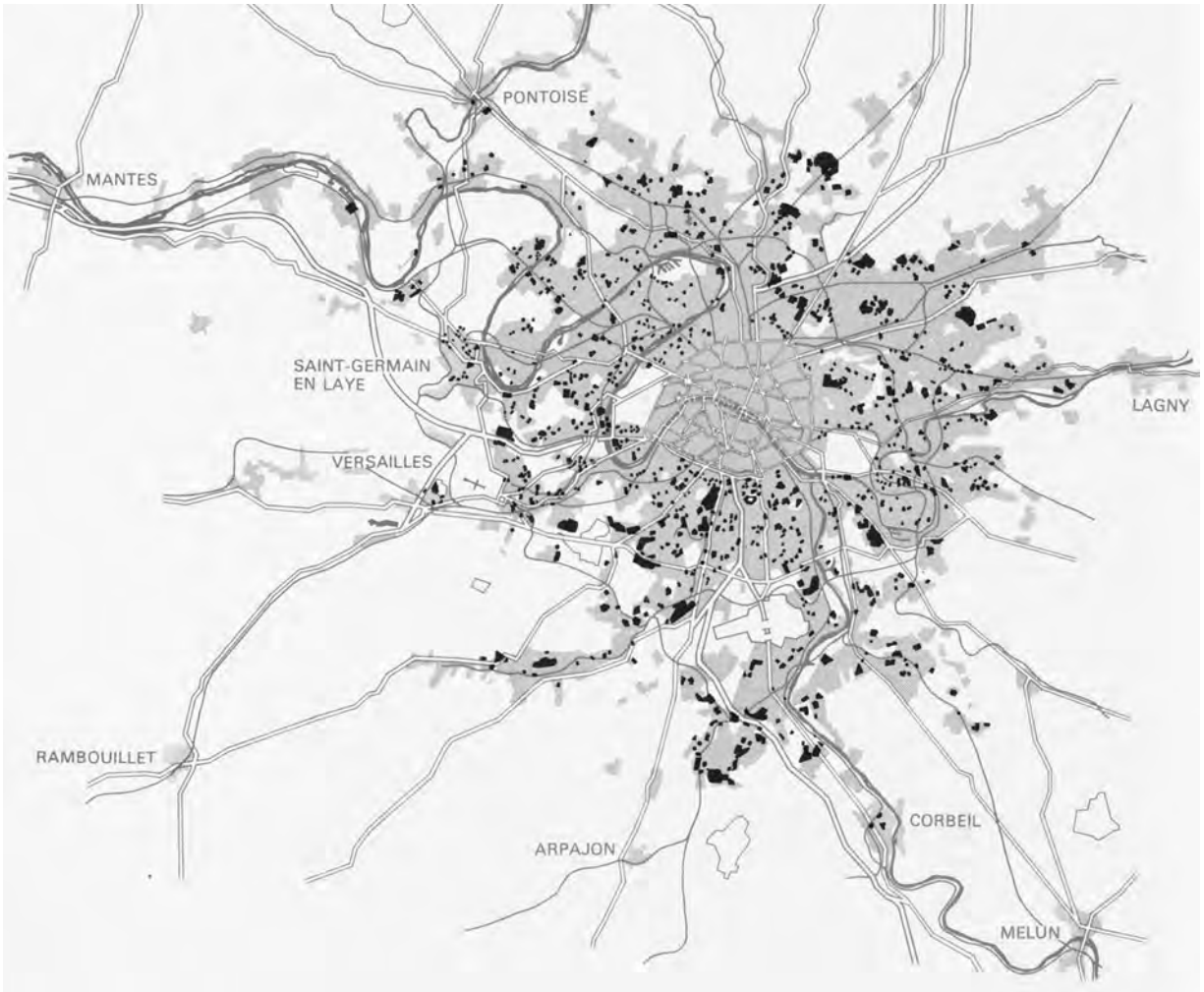
Figure 5.2. A map from 1965 of housing developments built in the Paris region between 1939 and 1964, meant to show the disorganized character of urban growth. From District de Paris/Premier Ministre, *Schéma directeur d'aménagement et d'urbanisme de la région de Paris* (Paris, 1965), 56.

taken apart, the *ville nouvelle* ought to be the city put together. That conviction informed the official denunciation of the *grands ensembles* with the famous Guichard directive of March 21, 1973. Signed by Olivier Guichard, who had worked under Delouvrier and had enthusiasti-cally supported the Gaullist modernization of France before he became minister in 1972, the directive was motivated by growing evidence of social problems in the *grands ensembles* and effectively terminated any further development of such large-scale housing projects. The *villes nouvelles* not only escaped the legislative condemnation; in fact, their presumed antithesis helped Guichard to further endorse them by stating that "the *grand ensemble* opposes the

center, while the *ville nouvelle* re-creates a center. The *grand ensemble* is without moorings. The *ville nouvelle* becomes the node in a network of connections."[7] By the time of this speech, the reactions to and critiques of the *grands ensembles* had already informed specific design strategies for the *villes nouvelles*. And these had not remained in the realm of thought, as large swaths of land around Paris and in provincial locations had been earmarked, infrastructure works had started, and the first buildings had appeared on the horizon.

In the face of a nation beginning to show the growing pains of the rapid urbanization associated with large-scale state-aided projects, the *villes nouvelles* project was acceptable only insofar as it appeared to be something radically new. Casting the *ville nouvelle* as anti–*grand ensemble* was a productive myth: a strategy as old as Baron Hausmann, of separating the project of modernization from the troubles of the past. The only challenge was that the *grands ensembles* were not yet in the past: they continued to be massively constructed until well into the 1970s, despite mounting critique. The temporal coexistence between two purportedly opposite models of urban development within the same centralized state apparatus was certainly confusing, and not only to the planners themselves.[8] To the general public, the role of the state in the built environment appeared increasingly contradictory between the mid-1960s and the mid-1970s—simultaneously endorsing and criticizing its own actions. More important, public surveys showed that the vast majority of the French did not often see the difference between a *ville nouvelle* and a *grand ensemble*.[9] Both terms were in common use to describe a variety of large-scale urban developments built or planned at this time. Some large-scale urban developments, including Mourenx, Créteil, Toulouse-le-Mirail, and Grenoble Échirolles, had been explicitly branded by their developers as *villes nouvelles*. Even Sarcelles, the most typical counterexample for Delouvrier and his New Town planners, tried to obtain the official status of *ville nouvelle* when the municipality found out about the project.[10] *Grands ensembles* and *villes nouvelles* were thus vulnerable to the same criticism of large-scale, state-led urbanism mounted by the public media.

In fact, much of the logic behind *villes nouvelles* planning was indebted to, rather than in opposition to, that of the *grands ensembles*. First of all, they shared the same rhetoric of radical change.[11] In 1956, Pierre Sudreau had envisaged the *grands ensembles* as "veritable transplants on a sick body." In addition to solving the housing shortage and facilitating economic development, they were also instruments "to tidy up the Paris region."[12] Just like the *villes nouvelles*, so were the *grands ensembles* thus cast as solutions for the existing suburbs, their unorganized development, and their lack of amenities. Gérard Dupont, the administrator behind the *grille Dupont*, had described the *grands ensembles* around Paris in remarkably holistic terms: "To the conception of the Parisian agglomeration as having a single center linked via umbilical cords to dormitories further and further removed, needs to be substituted a polycentric development around *grands ensembles*, poles of new growth representing balanced and complete

residential units—that is to say, containing centers for employment, commerce, administration, social protection, recreation, and culture."[13] A decade later, the planners of Évry explained the future New Town in very similar terms to Sudreau's and Dupont's. Only now, their project was an opportunity to address not only the problems of existing suburbs but also those of the *grands ensembles*, which had not lived up to their promise:

> The programming of a New Town thus corresponds to an urgent need to structure an urban fabric marked by the proliferation of housing, insufficiently compensated by the development of employment sites, means of transportation, and offering the inhabitants of the 14 municipalities—that will soon amount to 200,000 people—not more than very mediocre possibilities for social life and exchange, a function that the center of Paris—saturated and far removed—can no longer really assure.[14]

The dominant perception of the *grands ensembles* as "silos for people" devoid of social life and amenities—whether this was a reality or not—informed the conception of the *villes nouvelles* in quite specific ways. One consequence was the exacerbation of planners' interest in making lively urban environments, which was in fact a continuation of earlier strategies centered on *animation*. Only this time, planners realized that they needed to fundamentally alter the mix. Rather than a substrate of housing with collective facilities and public spaces as the icing on the cake, less than a third of the *villes nouvelles* should be made up of housing.[15] An important goal would be employment. At the onset of the New Town of Cergy-Pontoise, planners realized that "the *ville nouvelle* will be a failure if the jobs do not follow: 46,000 jobs need to be created before 1975."[16] But housing and jobs were not enough to create "real cities."

What other kinds of program they should be made up of, and how those would come together spatially and architecturally, was central to the *villes nouvelles* over the following decades. This question would bring architecture and social science together in novel ways, leading to new methods of planning and urban design. The challenge was not just to find the right mix of ingredients for city building, as the *grille Dupont* had attempted, but how these elements could be integrated into an urban system. It was a *system* rather than whole—or *ensemble*—because interrelations now mattered more than just things by themselves. All of the city's functional elements needed to be integrated into a system that allowed them to be interconnected. Complexity, which sociologists increasingly emphasized in their studies of the existing urban condition and planners saw lacking spatially and architecturally in dominant models of urban development, became a goal unto itself. The *grand ensemble* was identified by its self-contained nature, despite recent attempts by Dupont and his colleagues to overcome the *grille*'s enumerative approach to facilities. The *ville nouvelle*, to overcome these shortcomings, needed to be more than the sum of its parts.

The relationships between different programs and their spatial integration also begged new ways to take into account the factor of time. Instead of the projection of an urban plan frozen in time, planners began to emphasize planning as a *process*. This shift was again inspired—at least in part—by a critique of the *grands ensembles*. Their perceived (and often real) failure to provide urban amenities led planners to attend first and foremost to the construction of public infrastructure and institutions and only later to housing. At the New Town of Cergy-Pontoise, one of the first buildings to go up was the prefecture. In order to provide facilities for the first inhabitants that would soon arrive, the building contained a large public atrium, a cinema, a restaurant, a bar, an art gallery, and about fifteen shops, including a hairdresser, a shoemaker, a travel agent, and clothing shops (Figure 5.3).[17] The building was conceived as the urban nucleus of a much larger city to come. Such approaches to city building often responded to very mundane problems associated with the *grands ensembles*, including the arduous experience of first inhabitants who had to tread through muddy construction sites for years. Some planners thus felt inclined to promise a city "without construction sites" (Figure 5.4).

In short, the *villes nouvelles* were no longer about a given set of programs but became a question of programming. In 1960s France, programming or *programmation* emerged as an elusive notion and set of techniques in response to the critiques of mass housing projects and the ambitions of the *villes nouvelles*. In the United States, programming seems to have entered into the field of architecture as a "second functionalism" centered on flexibility in institutional architecture and fostered by the development of corporate practice.[18] And in Britain, programming became perhaps most prominent as an architectural approach through the collaboration of Cedric Price and the cybernetician Gordan Pask in the Fun Palace, an unbuilt participatory cultural center whose architectural technologies aimed to organize flexible forms of social activity.[19] By contrast, *programmation* in France emerged at the intersection of architecture, planning, and sociology, by virtue of a centralized state that orchestrated a significant part of urbanization through large-scale intervention and acted as the central platform for the knowledge production that accompanied it. Yet, the approach of programming in French New Towns would also be prompted by forces outside the government, more precisely by the dynamics of a rapidly changing consumer society.

## Volition and Volatility

What shaped the course of French urban planning most profoundly during the 1960s was an economy that seesawed between state invention and free-market principles. Contrary to the lasting perception of French authoritarianism and the legacy of the Vichy government, the Plan Monnet was already based on an idea of planning whose method would continuously adapt to changing market conditions. During the presidency of de Gaulle, economic planning

Figure 5.3. Prefecture building of Cergy by the architect Henri Bernard, 1965–70. Exterior view: Fonds H. Bernard. Académie d'architecture/Cité de l'architecture et du patrimoine/Archives d'architecture du XX<sup>e</sup> siècle. Copyright 2014 Artists Rights Society, New York/Société des auteurs dans les arts graphiques et plastiques, Paris. Interior view: *Techniques et architecture* 32, no. 5 (1970): 60.

Tout doit aller très vite puisque cette ville de 30 000 habitants sera construite en six ans. Encore faut-il que pendant cette période **les habitants ne vivent pas dans un chantier permanent.** Pour les quartiers résidentiels, c'est assez simple : les logements seront construits par ilots avec leurs écoles, leurs rues, leurs pelouses. Pour le **centre** c'est plus difficile puisque les réalisations seront progressives en fonction des demandes et des besoins.
En conséquence, on commencera par construire des **digues** pour les piétons et des voies en tranchées pour les voitures et les camions. Sur ces digues les canalisations seront enterrées, les arbres seront plantés et les piétons pourront circuler à l'abri de la circulation des chantiers qui deviendront un spectacle au lieu d'être une gêne.
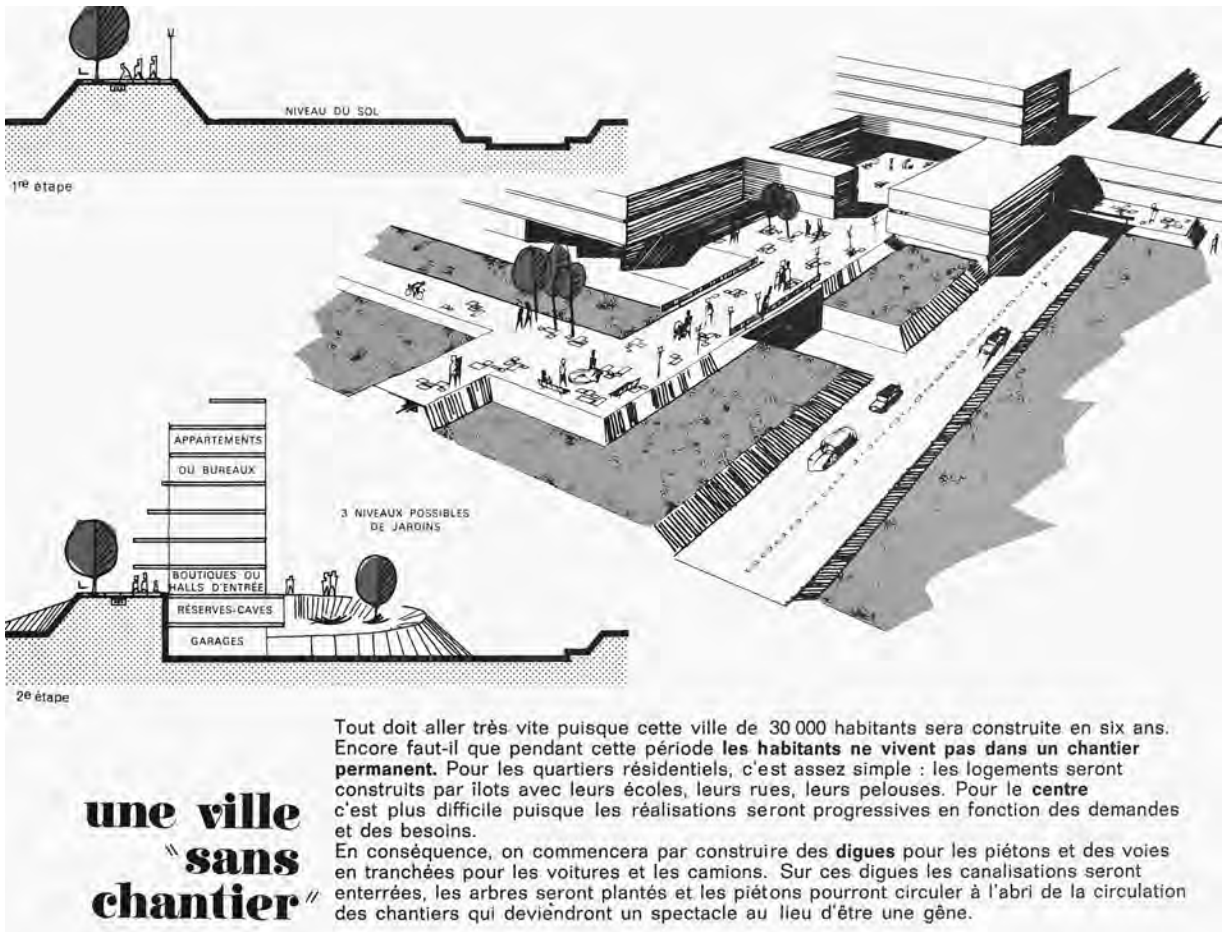
une ville
"sans
chantier"

Figure 5.4. "A city 'without construction sites'" promised by a promotional brochure for Cergy-Pontoise in 1969. Archives nationales, France, CAC 19910585/009.

was increasingly understood in terms of an *économie concertée* or mixed economy, rather than being based on direct state intervention. This notion, initially espoused by François Bloch-Lainé, had gained widespread acceptance throughout the upper levels of state administration as a way to conceptualize the relation between state and market.[20] The state would no longer be an essentially reactive arbiter of competing private interests; it should now actively encourage private economic development.[21]

Perhaps it was the continuity of this kind of economic planning throughout the *trente glorieuses* that obscured the momentous changes wrought by a steadily advancing consumer culture infiltrating the country's economic and social fabric. Although its disarranging repercussions remained hidden to most observers until the escalating protests by students and workers in May 1968, mass consumption had been enthusiastically embraced at least since

Liberation. Even if "private interests" often meant an oligarchy of large industrial companies, especially in the first postwar years, consumers became increasingly central in the understanding and management of the economic realm. Consumer culture did not have the same weight in French economic life as it did in the United States, but, as elsewhere on the Continent, it still gained increasing dominance over economic and social affairs—in part under the influence of American entrepreneurs.[22] The changing rhetoric of national economic planning was a clear reflection of this evolution. During the 1960s, its goals were increasingly described in extraeconomic terms: planning now aimed at social and cultural development focused on "individual happiness" and "quality of life," concepts translated from the world of consumption and marketing rather than that of macroeconomic quantification.[23]

French suburbanization showed increasing signs of consumer-driven development. Commercial and real-estate developers were particularly important in placing the figure of the individual consumer at the center of urban planners' concerns. At the beginning of the 1960s, planners' prevailing attitude was still that commerce needed to be planned "top-down" by grouping it in commercial centers in concert with the neighborhood unit—a method for which the *grille Dupont* was the manual.[24] By the mid-1960s, however, planners opened the door to "modern, American solutions" for commercial development. These were focused mainly on suburban mall development, which, despite its late arrival in France, was an instant success.[25] Realizing that developers simply ignored their logic, planners began to question the virtues of top-down planning as it seemed to impede the freedom of commercial developers and shop owners to choose the best location for their business—and hence, that of individual consumers. Increasingly, it was no longer the state official or the urban planner, but the developer and the consumer, who were recognized as the bearers of economic rationality.

Just as private companies could choose where to locate, so individual consumers had an increasing ability to choose where they wanted to live, work, and shop. Car ownership had radically increased the geographic mobility of middle-class French families, and as they became increasingly central to French society, they became more powerful—not in the least through their purchasing power. The number of privately financed housing units had risen sharply during the 1960s and was further encouraged by the 1963 legislation promoting private instead of public financing for housing.[26] This evolution was all the more remarkable considering the lack of a mortgage policy, forcing home buyers to put down deposits approaching half of the total cost of their new homes.[27] Despite the absence of proper condominium legislation, developed only in the late 1960s, many of these new homes were apartments. Modern single-family homes, a rare sight before the mid-1960s, slowly began to find their way into French urban development, and, while still largely catering to the upper echelons of the middle class, they functioned as a powerful tool of social distinction in a society increasingly driven by consumerism.[28]

Whereas the early postwar projects took place in the near absence of a private housing market, and the *grands ensembles* initially filled this vacuum by producing mass standardized housing, state action during the 1960s would necessarily be defined by the way it took into account the dynamics of a differentiated housing market in which private developers and consumers had an increasingly powerful voice. More than any other initiative, it was the *villes nouvelles* project that demonstrates the way in which this evolution, which led individuals to be identified as consumers in search of distinguishing options more than as citizens bearing the right to housing, shaped French urban planning.

This was all the more surprising considering the intellectual tradition out of which the *villes nouvelles* had emerged. Despite the transnational exchange of ideas during the "golden age" of the New Towns globally, the *villes nouvelles* project was closely tied to the specific notion of *géographie volontaire* or volitional geography.[29] Despite the influence of François Gravier and Eugène Claudius-Petit during the late 1940s and 1950s, the idea of comprehensive territorial planning had stayed largely within the realm of political rhetoric. With Delouvrier, however, it seemed closer to reality than ever. Before being in charge of the district of the Paris region (1961–69), he served as a member of Jean Monnet's national planning committee during the late 1940s, moved in the highest ranks of the French government during the 1950s, and became general delegate for the Algerian government during its war of independence.[30] The troubles of French decolonization further reinforced the will to modernize, partly as a result of the insertion into the state administration of a generation of former colonial administrators. Together with Delouvrier, their appetite for strong rule and visions of bringing order to France's suburban "wilderness" helped to further focus state policies on modernizing the metropole.[31] Geographers such as Jean Labasse translated their ambitions into an increasingly realistic theory of *géographie volontaire*, in which entire geographic regions would become the object of rational yet flexible organization by the state.[32] In other words, the *villes nouvelles* project, drawn up behind closed doors by an elite of state planners and high-level politicians and adopted regardless of its brief "public consultation," was a perfect embodiment of *géographie volontaire* and the authoritarian nature of French planning more broadly.

The extraordinary sense of volition, however—and the accompanying belief in a "makeable society"—was bound to confront the growing economic dynamism of French society in the 1960s. In planners' early discussions about the *villes nouvelles* emerged the acute awareness that the private market could no longer be neglected, in particular in the way it shaped and was shaped by individual consumer choice: "The urban expansion obeys to imperatives born out of the notion of profit: a certain region is urbanized because it is known that it will be sought by a potential clientele of homebuyers. Can the objective of the plan be to substitute a different logic for this development? Can it impose, in the name of a rational urbanism, different solutions than those born from the market? We are touching the limits imposed on the

plan here."[33] Pierre Merlin, an academic geographer and *villes nouvelles* consultant, would later write that one of the central objectives of the project was to "restore the freedom of choice for citizens, and in particular those of the second zone who were the suburbanites: choice in employment, choice in the type of dwelling and its surroundings, choice in shops, choice in recreation, choice in friends, choice in love."[34] Colored at the time of writing by the liberal aspects of the project, such statements nevertheless show how the nature of French planning was slowly changing during the 1960s. While it was still to be *volitional*—defined by resolute leadership and expert decision making—planning also needed to be *realistic,* taking as its basis the dynamics of the market and thus consumer choice in the urbanization process. The *villes nouvelles* project thus implied at once more freedom and more planning: it would be fundamentally consumer-oriented but remained closely directed by centralized state institutions, at least until decentralization in the 1980s.

Unlike the mass housing of the *grands ensembles,* the *villes nouvelles* needed not only to satisfy housing needs or economic development but also to attract and entice future inhabitants. The key place given to recreation and leisure in the *villes nouvelles* project was an indication of this shift. Many planners saw the New Towns first and foremost as consumer products that needed to be sold to the public. The 1968 advertising brochure for Cergy-Pontoise no longer promoted dwelling units, shopping centers, or office buildings but "a new way of life." The New Town lifestyle was "to work in proximity of one's residence, to slide down the hills to bathe in the lake, going to the countryside or the coast on Sundays without the nightmare of traffic, to go out in the evening without needing to reserve tickets weeks in advance, to enjoy the liveliness of an urban center without suffering from its noise, to drive or leave your car as you please, to leave the children to go to school by themselves without risk."[35]

Lifestyle was itself a relatively young notion in France. The older notion of *mode de vie* or "way of life" had been central to French geography from the time of Paul Vidal de la Blache, but its meaning shifted fundamentally during the postwar period. *Mode de vie* no longer had the essential connotation of timeless regional tradition, but instead began to be explicitly related to notions of modernity and newness—in other words, the term approached the English notion of lifestyle. This specific understanding, signaled in the replacement of the term by *style de vie*, was a factor in the rise of middle-class consumer and leisure culture and thus the advent of a new "postindustrial society" founded on a radical diminution of working hours, paid holidays, and other welfare state benefits.[36]

The notion of lifestyle found its way into French urbanism during the 1960s. In a 1961 press conference about the goals of the plan, Delouvrier had stated the vaguely defined aim of "improving everyday life" as part of his larger ambitions to "design the Paris of 1975" and "think that of the year 2000." In the plan's publication in 1965, the concerns were described with the simple term *le bonheur* or "the happiness" of the French. While this notion expressed

the ambition to transcend the quantitative provision of housing or facilities, it still lacked the specificity of the concept of lifestyle, more particularly its diversity, differentiation, and, essentially, freedom of choice. *Espace et loisir dans la société française d'hier et de demain,* a study by sociologists Joffre Dumazedier and Maurice Imbert, was crucial to the import of lifestyle as a preoccupation in urbanism.[37] The study took as its starting point Jean Fourastié's optimistic outlook of economic growth and its direct consequence, the spectacular development of leisure culture—proven by things such as the sales of pop music LPs and the popularity of *bricolage* (do-it-yourself) and *ciné-clubs* (movie clubs) or the construction of holiday resorts and second homes. While still indebted to a quantitative concept of use based on *grilles d'équipement,* the authors understood the evolution of leisure as a radical expansion of people's freedom and aspirations. This, they argued, prompted a rethinking of urbanism to encompass "the planning of the living environment in its entirety."[38] Most important, the study emphasized not just the increase of individual consumption, but the radical *diversification* of needs that this evolution entailed. By suggesting that urban development should center on leisure— such as recreational lakes—the authors of the study articulated the design strategies of *villes nouvelles* such as Cergy-Pontoise. Here the concept of a new urban lifestyle was based on the transformation of a nearby river bend into a massive recreational environment serving as the backbone for the New Town (Figure 5.5).

In the wake of the 1968 protests and the departure of de Gaulle, consumption and lifestyle entered more explicitly into political programs and policies. Urban planning ideology, still fundamentally shaped by a belief in expert leadership, gradually opened up to focus on the citizen as a dynamic consumer with the right of mobility and individual choice. The new administration of Georges Pompidou thus circumvented the authoritarian origins of the *villes nouvelles* project. Some of this was personal: Pompidou did not seem to like the project and did not get along with Delouvrier, who remained a Gaullist at heart. But the ambivalence about the *villes nouvelles* was more fundamental. The new government, engrossed with restoring calm after the violent eruption of public discontent in 1968, openly questioned the expensive and increasingly unpopular large-scale state interventions of the past decades. Minister of housing and infrastructure Albin Chalandon called to "vigorously suppress this excessive interventionism."[39] But it was too late to abandon the colossal state project altogether. It thus needed to be reframed. The official strategy was now first of all to "limit the intervention of the public authorities in terms of both conception and construction, by concentrating it on the key structuring elements," to "allow the largest possible flexibility to the intervention of the developers," and to "engage the public authorities only insofar as financial means allow."[40] Many state officials were aware that private corporations and developers would not obey a government considered far too centralized, interventionist, regulatory, and normalizing. By the close of the decade, Jean-Eudes Roullier, head of the *villes nouvelles* think tank, articulated the new role for
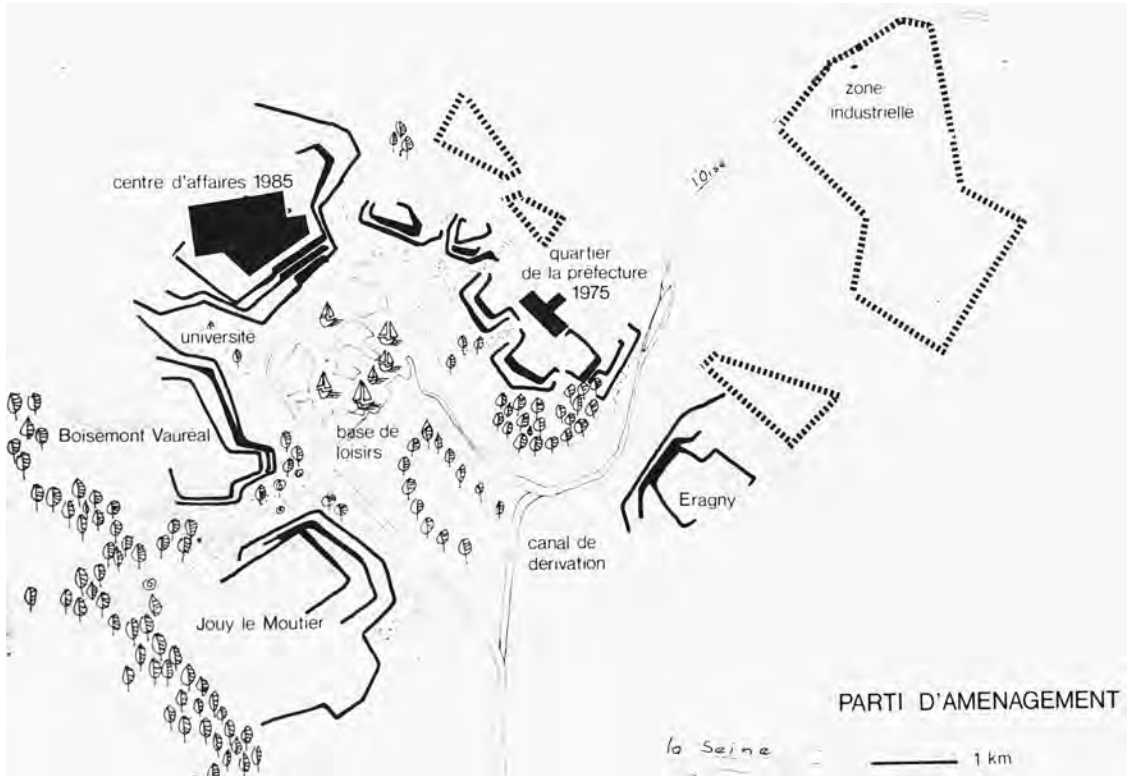
Figure 5.5. Plan of Cergy-Pontoise with the recreational lake in the center, illustrated in the promotional brochure for the New Town, 1968. Archives nationales, France, CAC 19910585/009.

government-led urban planning: no longer to regulate the private sector but just to mobilize and incite it.[41]

While this new political ideology did lead to a more careful elision of interventionism and a stronger reliance on private development, the *villes nouvelles* project continued to be based on a centralized state defining not only the location of the New Towns but also their urban conception. Government control over land use was at the basis of French New Town planning. Yet, because of their enormous scale—they were initially projected to occupy an average surface of around 5,000 hectares compared to an average of 100 to 200 hectares for the *grands ensembles*—the *villes nouvelles* could not be built using the same legislative mechanisms. The government thus intervened in ways at once more "soft" and more decisive. It developed acquisition methods that would increase control over land prices while minimizing direct investment. This meant maximizing private investment while minimizing speculation. State purchase of land was limited to the strategic elements of the plan: the urban centers, major amenities, and public infrastructure, for which development required direct government intervention. The majority of land was subsequently planned in collaboration with the private

sector through a new set of legal procedures. Yet the *villes nouvelles* project precipitated more than just a new strategy for controlling large-scale development. The volition of French state planning and the volatility of a flourishing consumer society engendered a new kind of city building—which required a new type of city builders.

## Professionalizing Programming

The *villes nouvelles* project was part and parcel of a significant reorganization of expertise in France. The project precipitated but also relied upon new relationships between the professions and professionals of the built environment. Government officials were aware of private developers' increasing power and activity, which often went without government oversight. Those in charge of the *villes nouvelles* project thus realized that planning could no longer be centered on the design of a static master plan, as the *grands ensembles* had been. It required a more flexible approach of programming zones and activities in a larger territory that was in ongoing (sub)urban development. The New Town of Évry, for instance, was meant to steer rather than freeze the development of the surrounding region, which had undergone rapid suburbanization in the previous two decades.[42] Planners cast the New Town as an "open structure" that would adapt to its surroundings while allowing planners to mold and structure them by means of strategic development (Plate 9). Despite this flexibility, the plan was centered on a rather idiosyncratic cross-shaped figure, meant to allow green space to penetrate into the center while keeping main roads away from the residential neighborhoods (Figure 5.6).[43] The *schéma des structures* or structural diagram for the New Town of Cergy-Pontoise included not only the areas marked for development but also the existing village of Pontoise and the forests and lakes that were being reframed as recreational zones (Figure 5.7). This was a plan of relations and connections, an urban network rather than a set of hermetic boxes. With buzzwords like "urban framework" (*trame urbaine*) and "urban armature" (*armature urbaine*), the need for large-scale structures that would efficiently reorganize large swaths of suburban land while facilitating the mobility of an increasingly demanding population was at the forefront of planners' concern.[44] Roullier contended that the vast new scale with which planners were confronted prompted a shift from "rigid French-style master plans or the city of an architect" to an approach focusing on "the problems of the center, the force lines, leisure, and transportation in a flexible and living diagram."[45] The *villes nouvelles* were thus cast as the results of a "better" kind of modernism, focused on a consumer imbued with individual mobility and the right to choose.

    The ideas were in line with the work of University of California, Berkeley planner Melvin Webber. In a paper published shortly before, he had argued that urbanization in the era of the automobile gave rise to "communities without propinquity." Planning consequently should be
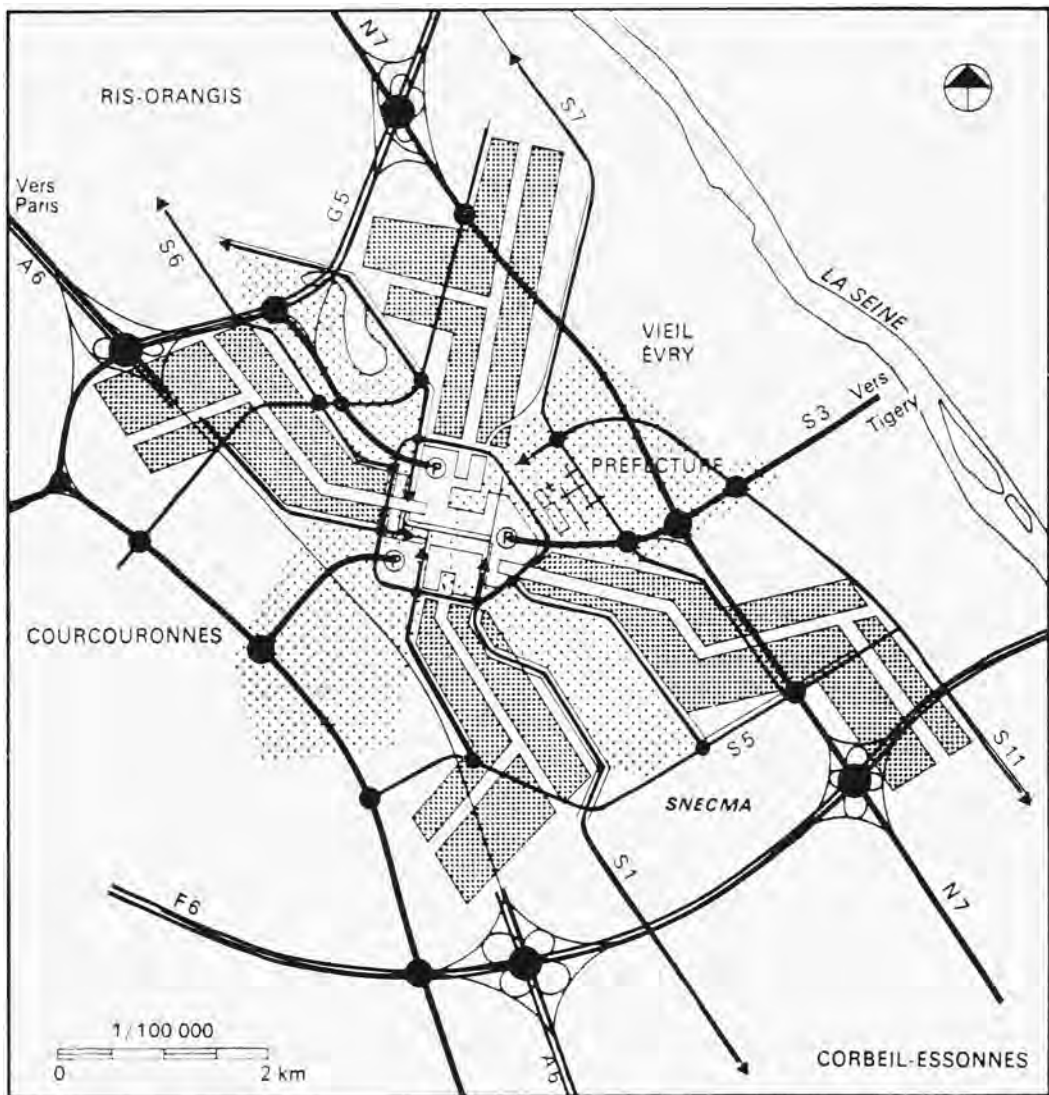
Figure 5.6. The new urban center of Évry in 1969, based on the idea of a cross of four *trames urbaines,* more densely built-up urban spines (hatched areas) separated by open space (lightly dotted areas). From *L'Architecture d'aujourd'hui* 146 (1969): 46.
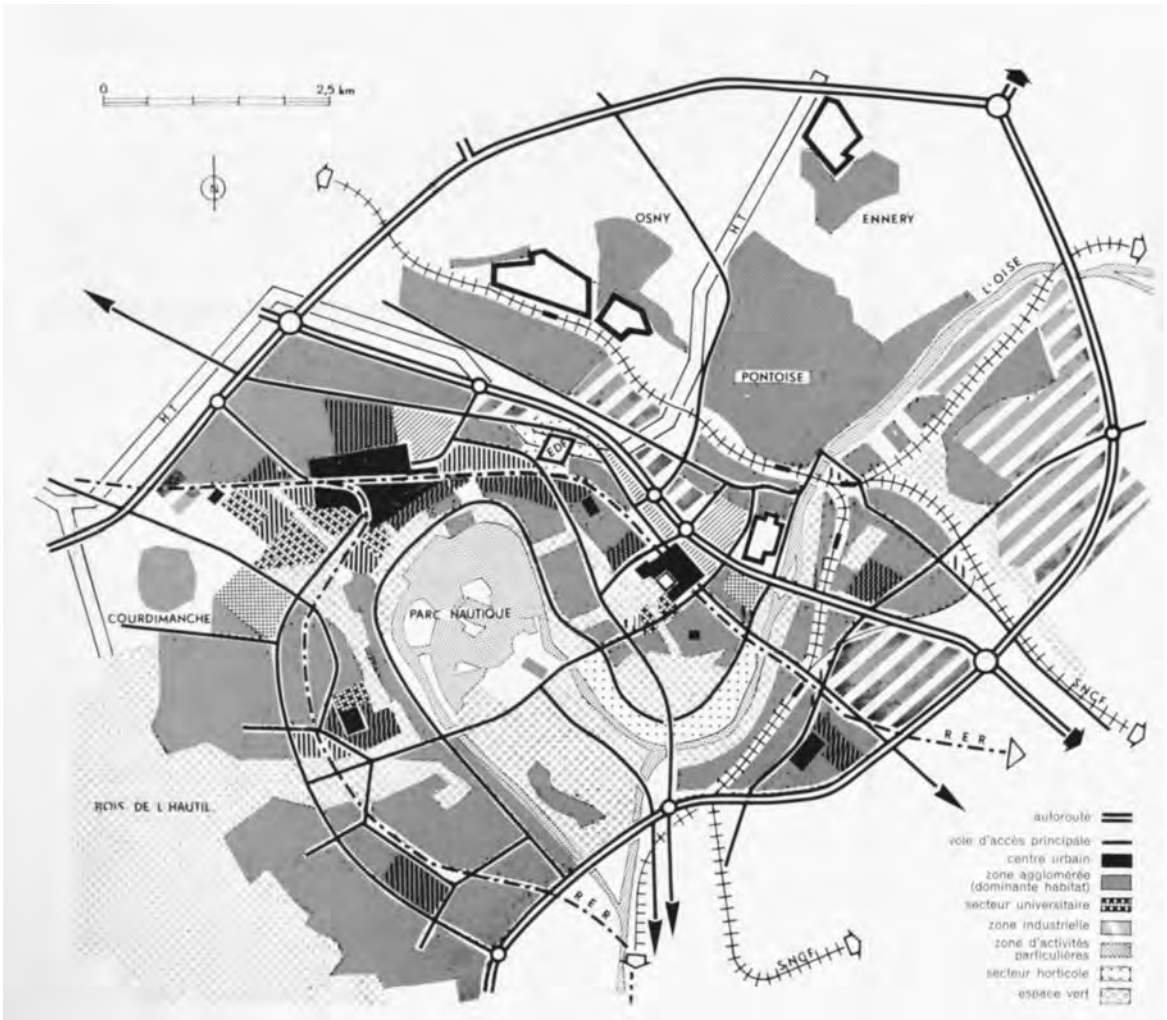
Figure 5.7. Structural plan for Cergy in 1970, with the urban centers (in black), housing areas (in gray), and industrial zones (in diagonal hatch) all connected by a network of circulation. From *Techniques et architecture* 32, no. 5 (1970): 46.

not in rigid neighborhood units but should flexibly respond to the "non-place urban realm."[46] His ideas were crucial to the latest phase of British New Town plans, in particular Milton Keynes.[47] The planning of this New Town radically defied centrality in favor of a flexible urban grid of highways. Without giving up centrality, in fact vigorously reinforcing it, French planners were influenced by the flexibility of this approach and the redefinition it suggested between structure and program.

French planners went so far as to cast the *villes nouvelles* as a paradigm shift, from *urba -nisme* to *programmation*. The first term referred to a particularly architectural approach to the city in France at this time: urbanists were generally trained as architects, and the dominant

approach was one of urban form and composition. *Programmation*, in contrast, was thought of as starting from the content rather than the form. For Évry, for instance, planning began with a geographic comparison of different French cities based not on their morphology but on the mix of urban activities they contained. This programmatic analysis of reference cities was then extrapolated for the New Town based on a projection of future needs in the surrounding region. The method led to a great variety of urban programs, which no longer had much to do with the four functions of the Athens Charter.[48] With such scientific, or at least methodical, operations, planners aimed to do away both with the dogmatic approaches of interwar modernists and with the approach to urbanism as an "art urbain" based on Beaux-Arts composition or the artistic ideas of individual designers more generally.

During the 1960s, the promise of science remained particularly appealing to planning professionals in France and beyond. The attempt to reframe urbanism as a rigorously scientific and technically exact endeavor was in part prompted by the social status of science and technology. Engineers were both a source of anxiety and an inspiration for French urbanists. The French centralized state had been cultivating an elite corps of state engineers for centuries, and their role was only further strengthened in the postwar decades. In 1963, the Direction à l'aménagement du territoire (Territorial Planning Department), initially a division within the Ministry of Construction, was placed under direct command of the premier. This led to the creation of a new, powerful planning institution, the Délégation à l'aménagement du territoire et à l'action régionale (DATAR, or Delegation for Territorial Planning and Regional Action).[49] The ministry remained in charge of urbanism but saw part of its responsibilities taken away by the engineers at DATAR, whose approach was geared first of all toward regional-scale economic development. The fusion in 1966 of the Ministry of Construction and the Ministry of Public Works into a large and powerful Ministère de l'équipement led by Edgard Pisani further galvanized the position of engineers in state-led urban planning. It was also a sign of the government's ambition to gain a more comprehensive understanding and control over the urbanization process. Rather than to a more technocratic kind of urban planning, however—at least in the sense of a predominance of technical and engineering aspects—it led to a more "scientific" approach in which the comprehensive view became key.[50]

What such a comprehensive view required first of all was the fusion of multiple kinds of expertise. As such, the social sciences gained a prominent place in the planning process.[51] In the face of the growing complexity of French urbanization, the *villes nouvelles* could no longer be the work of a single author. They required more than just the masterly hand of a Beaux-Arts–trained architect-urbanist, the technical expertise of engineers, or the norms established by a ministry; their planning entailed intense collaboration between architects, urbanists, engineers, economists, sociologists, geographers, and so on. The more, the merrier, it seemed, in the optimism of the 1960s. The new method of city building was thus that of a large team

of experts creating long-term, scientifically grounded visions, diagrams, reports, and studies. These multidisciplinary teams promised an exciting new way for *villes nouvelles* planners to overcome the challenges of marrying ambitious state-led planning with the uncertain dynamics of private development.

Some French architects and urban planners had been calling for multidisciplinarity since the early 1950s. A decade later this was no longer a suggestion at the margins; multidisciplinary teams were quickly becoming a dominant mode of practice. Sociologists such as Paul-Henry Chombart de Lauwe, as discussed in chapter 2, had been at the forefront of this trend as they promoted the inclusion of their expertise into urban policy during the 1950s and 1960s. The Centre de recherche sur l'urbanisme (Center for Research on Urbanism), jointly established by the ministers of construction and of national education in 1962, became a key platform for interdisciplinary exchange.[52] Meaning to create "a direct relationship between applied and fundamental research," it brought together architects, planners, and policy makers with academics from a wide range of social-science disciplines, including Robert Auzelle, Pierre George, Jean Stoetzel, and Fourastié.[53] The center's director, Jean Canaux, described the growing dialogue as a result of a proactive sociology, which "begins to surpass the description of the existing condition, in order to reach a new phase in its history. It becomes capable, bit by bit, of discerning the formative currents of the future society, and maybe even of acting on these in order to attain a desired future."[54]

The authors gathered together for the 1966 *Urbanisme* journal issue on urban sociology argued in similar terms that sociologists were "in the process of passing from the role of spectator to that of actor" and that "the intervention of the sociologists cannot be limited to the sphere of reflection," but instead must "be constantly associated on all levels to the creation of the destiny and all transformative phases of the city." Unlike previous calls, they envisaged a particular kind of sociology, "freed from general and abstract notions, transcending the level of the family unit or the housing unit," one that would "engage at the level of the city or the agglomeration considered in its entirety."[55] Just as urbanism itself needed to be rethought—away from the drab housing estate and toward a conception of the city at large—so the purview of sociology was to change in scale. When the government incited new forms of social-scientific research through a range of different institutions, the focus was increasingly on large-scale urban regions. This was the case not only for the IAURP in Paris, but also for new organizations in the provinces, such as the Regional Organization for the Study of Metropolitan Areas (Organisme régional d'étude de l'aire métropolitaine) and the local Urbanism Agencies (Agences d'urbanisme). While they remained the hallmarks of the *villes nouvelles* planning, multidisciplinary planning teams became standard practice in all of these institutions.[56]

Multidisciplinarity was in fact written into the basic procedures of New Town planning. Concretely, upon the decision for the definitive location of each New Town, the prime minister

created a local study team *(mission d'étude)*. This multidisciplinary team was charged with all preliminary studies and plans. Once a preliminary plan for the New Town was created, it would be transformed into a Public Planning Institute (Établissement public d'aménagement) charged with the detailed execution of the plan. In 1967, the team of Évry was made up of around twenty-five professionals divided into four groups: administrative and financial tasks, technical aspects, urbanism, and *programmation*. Whereas the urbanism group was largely made up of architect-urbanists, the latter group entailed not only straightforward economists or experts in public administration, but also a new breed of planning experts.[57]

However central *programmation* became to French New Town planning, it remained ambivalently defined as something in between a new planning method, a new type of expert knowledge, and a new profession of *programmateurs* or "programmers." With a background in political science, sociology, or architecture, these programmers were primary carriers of the belief that social-scientific research was fundamental to a better kind of urban design and planning. During the initial phase of the *villes nouvelles*, between the late 1960s and the mid-1970s, the hopes were high: although in some cases it was not clear what *programmation* meant, it was considered an essential element in the planning process, in particular for that of the New Towns' public facilities.[58] *Programmation* owed much of its success to the general appeal of hard science and exactitude in planning. At the same time, it was seen as a way toward a more user-centered approach to the built environment. Many of the new research and consultancy firms emerging during the 1960s harnessed programming as a crucial method of adapting architectural production and urban planning to people's needs and desires.

Of these consultancy firms, Centre d'études, de recherches et de formation institutionnelles (CERFI, or the Center for Institutional Studies, Research, and Formation) was perhaps most radical about the emancipatory potentials of programming. The group, founded in 1967 by psychotherapists, pedagogues, architects, and urban planners under direction of the psychoanalyst Félix Guattari, developed a uniquely theoretical approach that was heavily influenced by Guattari's collaboration with the philosopher Gilles Deleuze at the time. That collaboration had led to *L'Anti-Œdipe*, a philosophical treatise on desire under capitalism and a fundamental critique of Freudian psychoanalysis, published in 1972. Inspired by this work, and specifically by Friedrich Nietzsche's *Genealogy of Morals*, the group's critiques and proposals were based on a "genealogy of collective facilities."[59] They started out by analyzing the conventional way of programming such facilities, which was based on the quantification of need per housing unit in a given area. Subsequently, they demonstrated how need was anything but natural and in fact resulted from deliberate social engineering. Historically speaking, collective facilities were instruments of domination, they concluded, constituting "the nonfamilial territory where the sovereignty of the State is directly exercised."[60]

Instead of the predefined calculation of need, they proposed a "global, integrated approach" based on needs as they were "actually expressed." Programming consequently was "a complex social function not departing from a social demand that is already given but determining its formation."[61] In a study for the establishment of mental therapy facilities in the New Town of Évry, they argued that what was at stake was "not a sort of science of programming, made up of a range of abstract models," but that "the essence of a program lies in its particularity, in its original way of intertwining the different constraints of the project," and that "the users are the only ones in the position to mark, determine, and formulate these specific constraints."[62] Following *L'Anti-Œdipe*, the study argued against the dominant understanding of desire as a lack and instead theorized the productive capacities of the unconscious as a factory, a production machine.[63] The work's emphasis on the singularity of desire directly informed its approach to programming, which was concretely tested in Évry's new child day-care center.[64] The application signified the formidable traction of often rather arcane and abstract theories by French intellectuals such as Deleuze, Michel Foucault, or Jean Baudrillard in urban expertise at this time.[65]

That terrain was heterogeneous, to say the least, and *programmation* was no different. Despite planners' embrace, its concrete role remained often unclear. Was this new form of expertise meant to inform the public, to consult future inhabitants, or to engage them in participation? Were programmers to intervene in specific urban problems or only pursue research? Or were they perhaps merely to coordinate the multidisciplinary team itself? The planning process of Cergy-Pontoise, the first New Town to be developed, brought these fundamental ambiguities to the surface. The first plan was drawn up by the Prix de Rome architect Henry Bernard, who proposed a representative, symbolic center with administrative buildings bounded by dike-like structures. Both the appointed urbanist Jean Coignet and the prefect of the department opposed the plan for its lack of openness and attention to social life. Coignet then suggested consulting children, "because it was them, more than adults, who would be directly concerned by the *ville nouvelle*." With the help of the Ministry of National Education, he organized a drawing competition in primary schools of the region. It was lauded as a big success and received national attention. The Musée de l'homme even proposed to analyze the drawings ethnographically. But beyond what was expected, it did not lead to immediate guidelines for planning.[66]

For Cergy-Pontoise, a team of urbanists led by Coignet was installed in a temporary office on the location of the future New Town in order to allow a more intimate knowledge of the terrain and give inhabitants the chance to serve as local interlocutors. A year later, when this team was turned into an official planning mission under the direction of Bernard Hirsch, it was substantially enlarged both in number and in diversity of professionals involved.[67] Sociologists, both internal and external to the team, were intensively involved now. Planners

initially believed that because of this involvement they would be at the cutting edge of their discipline; they were quickly disappointed. According to Hirsch, "the sociologists were unable to respond and practical recipes never entered into their preoccupations, which revolved entirely around an abstract discourse and esoteric language."[68] The inclusion of sociology nevertheless had some concrete repercussions. When a female sociologist, addressed simply as Madame Lévi, was hired directly to be part of the planning team, she was apparently charged to study the immigrant construction workers. Her involvement led to the construction of emergency housing for single men and an allocation policy to house immigrant families in the apartments of the New Town. Other sociologists visited Hirsch's team to study the planning process itself. During one visit, Jean-Paul Trystram, professor of sociology in Lille, tried to convince Hirsch that sociologists needed to take a more central role by contributing to "more general ideas" in the conception of the New Town. Alain Touraine, by that time a well-known sociologist, was given a research contract to study the mechanisms of decision making in the planning process. The planning team found his work too theoretical to be of any concrete use. Hirsch then suggested that a sociologist come and observe for a longer period. Touraine sent his assistant Jean Lojkine, who, in the eyes of Hirsch, remained a quiet observer and disappeared "without exchanging his findings with the team."[69] The involvement of sociology in New Town planning was thus ambivalent, to say the least; it was often enthusiastically engaged, yet increasingly critical and often resistant to instrumentalization.

## The Productivity of Critique

While sociology became increasingly central to French planning during the 1960s and 1970s, it also became progressively more critical. The conference Urbanisme et sociologie, held during the first three days of May 1968 in the quiet settings of the Royaumont Abbey outside Paris, was—not surprisingly, perhaps, considering its historic timing—a landmark for this critical turn. Four years earlier, the Ministry of Construction had commissioned a team of academic sociologists to study provincial cities, including Lille, Bordeaux, Strasbourg, and Toulouse.[70] The question of how exactly such studies could contribute to urban planning was what led the administrator Françoise Dissard and the academic Trystram to organize the Royaumont conference.[71] Apart from a wide range of sociologists—including Henri Coing, Raymond Ledrut, Henri Lefebvre, and Chombart—the conference gathered state officials such as Paul Cornière, architects including Marcel Lods, Gérard Thurnauer, and Hubert Tonka, urbanists such as Auzelle, and representatives of various civil society organizations. It was the veritable culmination of a decade of discussions about the virtues of linking sociology and urbanism. In retrospect, it also was the sign that a strictly consensual relationship between sociologists and urban planners was no longer possible.

The heated discussions at the conference centered on increasingly fundamental critiques of state-led urban development and the role of expertise. The new generation of critical sociologists that had emerged during the 1960s radically opposed the simply instrumental use of sociological data in such urbanism.[72] They no longer understood planning as just a neutral form of expertise in the name of the common good and aimed instead to unveil its fundamentally political nature. The social unrest that was unleashed soon after the end of the conference that same month of May further precipitated this shift in mind-set. Not only Lefebvre, but many of the other young academics and planners were in fact involved in the protests or otherwise identified strongly with the protesters. As much as it had changed the face of urban France over the past decades, state-led urbanism was now increasingly criticized for its complicity in maintaining a classist capitalist society. Influenced by the writings of Lefebvre, whom he served as an assistant at the Institut d'urbanisme de l'Université de Paris (IUP, or Urbanism Institute of the University of Paris), Tonka concluded after the conference that "the urban question is not innocent in the global strategy of class power, because our society—according to the latest news—is a class society." Consequently, he argued, "urbanism is not an issue in itself, exterior to class struggle," but has a "coherent repressive rationality": its expertise is thus a direct instrument of class power.[73] The year before, Tonka had helped establish Utopie, a collaboration among architects, urbanists, sociologists, and theorists who criticized mainstream architecture and urban planning practice through their magazine, exhibitions, pamphlets, and posters.[74] Unlike Architecture Principe, the contemporary group established by Claude Parent and Paul Virilio, which augmented its theoretical work with (often paper) design proposals published in a similar "little magazine" format, Utopie conceived of its critique as a form of "theoretical practice."[75] No matter how destructive, its critique was still a fundamentally productive endeavor.

Such critique also reverberated within the very governmental institutions that the protesters held responsible. And it was quickly internalized. As not only the *grands ensembles* but also the *villes nouvelles* had become a primary target of critique around 1968, Michel Mottez, one of the planners of Évry, recounted the period with ambivalence: "It is a fact that the wind of 1968, of which we made use in our approaches and reflections, was often turned against us by many inhabitants for whom we were the slaves of big capital and of a technocratic government."[76] The "events" of May 1968 in fact engendered a new self-critical culture within the state administration. Rather than fundamentally negating the legitimacy of the state, this culture was still wedded to the idea of pragmatic improvement. Just as the government had an obvious interest in understanding the reasons for the popular and intellectual unrest of 1968, so it had an interest in sociological expertise, however condemning or critical it was. Quantitative studies and standardized opinion polls had failed to predict May 1968, so such uncritical approaches were now invalidated. New types of research were required: more

independent, fundamental, in-depth, and critical. Exactly such approaches, often highly theoretically inclined and qualitative in method, were thus cultivated by the French government during the following decade.

The ground for this evolution had been laid before 1968 in state-sponsored urban research programs and institutions. At mid-decade, the Délégation générale de la recherche scientifique et technique (DGRST, or General Delegation of Scientific and Technical Research), a premier government research institution, launched an ambitious series of open calls for urban research projects, indicating administrators' desire to get a better sense of the social repercussions of their urban interventions.[77] A similar call came from the recently established Central Technical Service of Planning and Urbanism (Service technique central d'aménagement et d'urbanisme). Its collapse in 1968 after internal contestation was emblematic for the widespread upheaval in government hallways and institutions as a result of the protests that year.[78] The institution's mandate was taken over by the DGRST, where from then on government-funded urban research was to be coordinated. Under the leadership of Michel Conan, the DGRST promoted a new type of research.[79] The application of research findings was de-emphasized and government calls were radically opened up. Entering researchers thus enjoyed more freedom to be explorative and critical, even if their conclusions often veered back toward the realm of policy.[80]

This new opportunity for financial support engendered a veritable research "market," which benefited a range of research offices and institutions, from the Centre de sociologie urbaine (Center for Urban Sociology) and CERFI to new teams such as that around Baudrillard or the Institut d'urbanisme de Grenoble.[81] Some of these were offshoots of large semipublic economic research institutions; others were entirely new and claimed novel forms of urban expertise. Situated on the borders of the university, the public sector, and the private consultancy sector, they were a wind of change in the research landscape otherwise dominated by the schism between "ivory tower" academic studies and the "applied" research directly commissioned by the government. Many of these offices were on the political Left, and their work was specked with references from a renewed Marxism and emerging poststructuralism.[82] As fervent as they were in their criticism of the state, many owed their livelihoods to it.

The new generation quickly extended its criticism from dominant state-led urbanism to those who had facilitated it. In contrast to Chombart, who, as Amiot has put it, "did sociology for planners," they "did sociology *of* planners and planning itself."[83] Despite Chombart's attempts to address the diversity of people's needs, his research was thus dismissed as complicit with the oppressive forces of state capitalism. The time of Chombart was clearly over: instead of an objective study of material needs, urbanism was now understood to be a political practice. Yet, despite the radical nature of this new critical apparatus, sociological expertise continued to find its way back into planning, albeit with the necessary detours and

translations. Critique and intervention were closely tied, not only for the avant-garde but also at the level of state bureaucracy.

The architects seemed to have joined in rather late but made up for that with their vigor and enthusiasm. After a time of conspicuous silence, architectural culture was front and center during May 1968.[84] A younger generation had almost imperceptibly emancipated itself from its elders by dismissing what it saw as stale ideas derived from Beaux-Arts academicism or a regurgitation of the Athens Charter. This older generation was, after all, responsible for designing and building now widely despised *grands ensembles* such as Sarcelles. French architecture education, epitomized by the elite École nationale supérieure des Beaux-Arts (ENSBA), was crucial in this shift. Contrary to the perception of the school as a bastion of resistance to change, many educational reforms took place during the 1960s and these effectively prepared the ground for architects' involvement in the protests of 1968.[85] Such changes included the establishment in 1963 of an atelier by Georges Candilis and Alexis Josic, who had their students attend the lectures of Lefebvre, then teaching at Nanterre. Whether the administration willfully resisted or promoted such intellectual renewal, May 1968 sped up change in architectural culture to the level of a revolution. And what positioned itself as a direct vehicle of that revolution—and initially filled the vacuum left by the collapse of the Beaux-Arts system—was an approach to architecture mixing social critique, sociology, and architectural research.

Until 1968, architecture at the ENSBA remained in the hands of the "mandarins," as its leaders would later be referred to. In this regime of white gray-haired men, the development of urbanism in the curriculum, which introduced a novel sensibility toward the urban, figured as a harbinger of change. Urbanism at the school was synonymous with the Atelier Tony Garnier, founded by André Gutton, who also taught at the IUP. Originally a professor in architecture theory, Gutton had developed courses in urbanism based on his own interpretation of the Athens Charter and the French ambitions of territorial planning. When Auzelle joined in 1961, the course was transformed into a seminar and workshop, whose briefs were informed by the "real-world" demands of private developers and the state.[86] Not just the teachers, but much of the student body in fact crossed over between the ENSBA and the IUP at this time. Following Auzelle, the workshop was not only indebted to modernism but also inspired by the "human sciences" as they transpired in the work of Gaston Bardet, George, and Chombart, among others. Rather than looking at "the building itself," Gutton argued, the Atelier Tony Garnier was the only studio to study "the building in the city." This, for him, entailed a shift from *form* to *program*, or, in other words, "the architecture of the building was no longer only linked to its function, the building in itself 'had a goal' in the social life of the city."[87] Architectural program, in other words, was sociologically understood. For actual courses in sociology, students had to wait until 1968, though such a curriculum change was in fact planned the year before.

Meanwhile, at the IUP, the country's oldest institution for urbanism, students did have such courses. "Introduction to Urban Sociology" had been taught by Jean Margot-Duclot since the early 1960s, based on the work of Georges Gurvitch, Georges Friedman, Maurice Halbwachs, Max Sorre and George, and Chombart.[88] The school however seemed intellectually more dominated by Auzelle's "Théorie générale de l'urbanisme." This course explicitly promoted an "urbanism of applied social science," which included economics, biology, sociology, demography, geography, and history.[89] Despite his focus on the social dimension, he dismissed opinion polls demonstrating the desire for single-family homes, following the argument of many modernists and intellectuals that such polls strengthened traditional views and obstructed innovation. And despite the embrace of social science, the school lacked the institutional strength to create an environment conducive to academic research.

Sociology as a form of practice-oriented research was thus present in the curriculum but seemed relatively inconsequential. The protests of May 1968 changed that dramatically. At the ENSBA, the open workshop Atelier populaire employed poster art to radically question the role of architecture and urbanism in society at large. Its posters featured statements such as the famous "Motion of 15 May," which read:

> We want to fight against the conditions of architectural production that submit it to the interests of public or private developers. How many architects have agreed to carry out projects like Sarcelles *[des Sarcelles]*, large or small? How many architects take account in their project specifications of the conditions of information, hygiene, and security of the workers on their construction sites and would do it if not a single developer responded to their call for tender?[90]

The contestation at the IUP was not all that different.[91] The only thing that could save architecture and urbanism, therefore, seemed to be a deeper understanding of its social use and consequences. And what else had already provided architects such critical insight but sociology? Young architects' embrace of radical social critique was accompanied by a devotion to sociology. While teachers and students at the ENSBA had more than occasionally received it with hostility, after 1968 sociology came into heavy demand from all sides.[92] Despite the highly politicized climate, its inclusion in architectural production continued to be based on an ideal of scientific rigor. Such an approach was posited as opposite to the strictly formal or normative approaches with which the architectural and urban production of the preceding decades was now identified.[93]

Many of the "pedagogical units" *(unités pédagogiques d'architecture)* created after the educational reforms of 1968 offered a prominent place to sociology and "scientific" research more generally. These units, which often brought students and teachers with similar political ideologies and pedagogical interests together, strengthened the position of sociology in architectural

education during the following decade. Many students and young architects still hoped this social science would supply them with in-depth knowledge about user needs and aspirations, even though a strictly instrumental use of sociology was increasingly discredited.[94] The functionalist theories of modernist architecture and planning were replaced by critical approaches such as that of Baudrillard, who proclaimed that "A theory of needs has no sense: the only thing that can exist is a theory of the ideological concept of need."[95] In a mass consumer society, he argued, needs were invented rather than given. More generally, sociology and anthropology were central at this time in redefining need from a mere physiological or biological given to a complex of cultural, psychological, and social factors, and confronted architecture with considerable challenges.[96] Sociology in particular assumed such an overwhelming position that some saw it increasingly as a threat and spoke of an "imperialism facing architecture."[97]

To sociology and critique was soon added architectural research. Not surprisingly, the government was key in the development of a research culture in French architecture after 1968. Conan, who was heavily inspired by the architectural doctrines of Christopher Alexander at this time, had already provided many architects with the opportunity to pursue urban research projects funded by the DGRST. In 1969, then, the Ministry of Cultural Affairs established an official committee for architectural research. Heated policy discussions in which prominent sociologists including Philippe Boudon, Bernard Lassus, Nicole and Antoine Haumont, as well as Henri Raymond, took part, resulted in the establishment of a Comité de la recherche et du développement en architecture (Committee for Research and Development in Architecture) two years later. This committee supported architectural research in early 1970s France, and collaborated with the DGRST to encourage and evaluate experimental architecture projects. With advocates such as Bernard Huet, journals such as *Urbanisme* and *L'Architecture d'aujourd'hui* functioned as a sounding board for this novel branch of the discipline, "research."[98] Ambivalently situated in between professional ideologies and the academy, being scientific would remain an obsession for many architects throughout the 1970s. To a large extent, the emergence of architectural research in France mirrored what was going on elsewhere in Europe and the United States. At a moment when architecture was going through a fundamental crisis, architects from John Habraken to Alexander turned toward research. They temporarily formulated a productive alternative to both the "business as usual" of the older generation and the radical negativity of critics such as Manfredo Tafuri and Massimo Cacciari.

This ambivalence was also reflected in the societal position of the French architect at this time. While architecture was still largely shaped as a liberal profession, the overwhelming role of the state during the *trentes glorieuses* had radically overturned architects' identity. In the eyes of the critical public, they were often seen as accomplices of the centralized state and thus equally responsible for its purported mistakes—especially the *grands ensembles*. The

combination of such external critique with increasing self-critique shaped the intellectual universe of young architects in the years around 1968 and placed them in often contradictory situations. The opportunities for young collaborative offices such as the Atelier d'urbanisme et d'architecture (AUA) often existed by virtue of the very same institution they criticized so fundamentally: the centralized state. In the proposal submitted for the *ville nouvelle* of Évry, the AUA explained that contradiction as follows:

> As long as sociology and town planning continue to serve a system where urban functions are restricted to the storage of the manpower necessary to the development of capitalism, theoretical choice shall be restricted to either the utopia of a testimony concealing impotence or the search for experimental spaces, while awaiting a liberated social practice that shall come at the proper time. . . . The city is not a free space for the accumulation of functional envelopes, it is an experimental support for intercourse. Our mission is to imagine its mechanisms and processes of development. While waiting for an adult society capable of constructing its own environment, we willingly accept the role of Demiurges ascribed to us, limiting our ideology to DIDACTISM and COMPLEXITY.[99]

The AUA was held together by its commitment to Communism at a time when the French government was decidedly liberal but a vigorous neo-Marxism shaped the dominant intellectual mind-set. In this climate, the AUA continued to submit proposals for large state-led planning projects, as for the New Towns of Évry and Cergy-Pontoise, the Villeneuve project of Grenoble, and La Défense (Figure 5.8).[100] Some of these were not the kind of projects that constituted a radical break from the large-scale capitalist state-led urbanism of the preceding decades; quite the contrary. Yet that contradiction was not perceived as such by many of the young, often collaborative architecture offices that would be increasingly patronized by the French state during the 1970s. The *villes nouvelles* were a central playground for this kind of architecture, which, as Tafuri would note, spoke the language of contradiction remarkably well.

## Combinatory Urbanism

The reorganization of urban expertise, to which French New Town planning was crucial, was driven by a certain sociological sensibility more than by the direct insertion of sociological data. Le Vaudreuil, one of the official New Towns launched in 1965 and one of the first to be conceptualized in architectural detail, was exemplary of how a concern for the user and a social critique of the planning process moved sociology into design. The New Town was part of the first regional planning study outside the Paris region, but despite being developed in concert with local politicians and the private sector, it still fit the centralized mold of a Gaullist
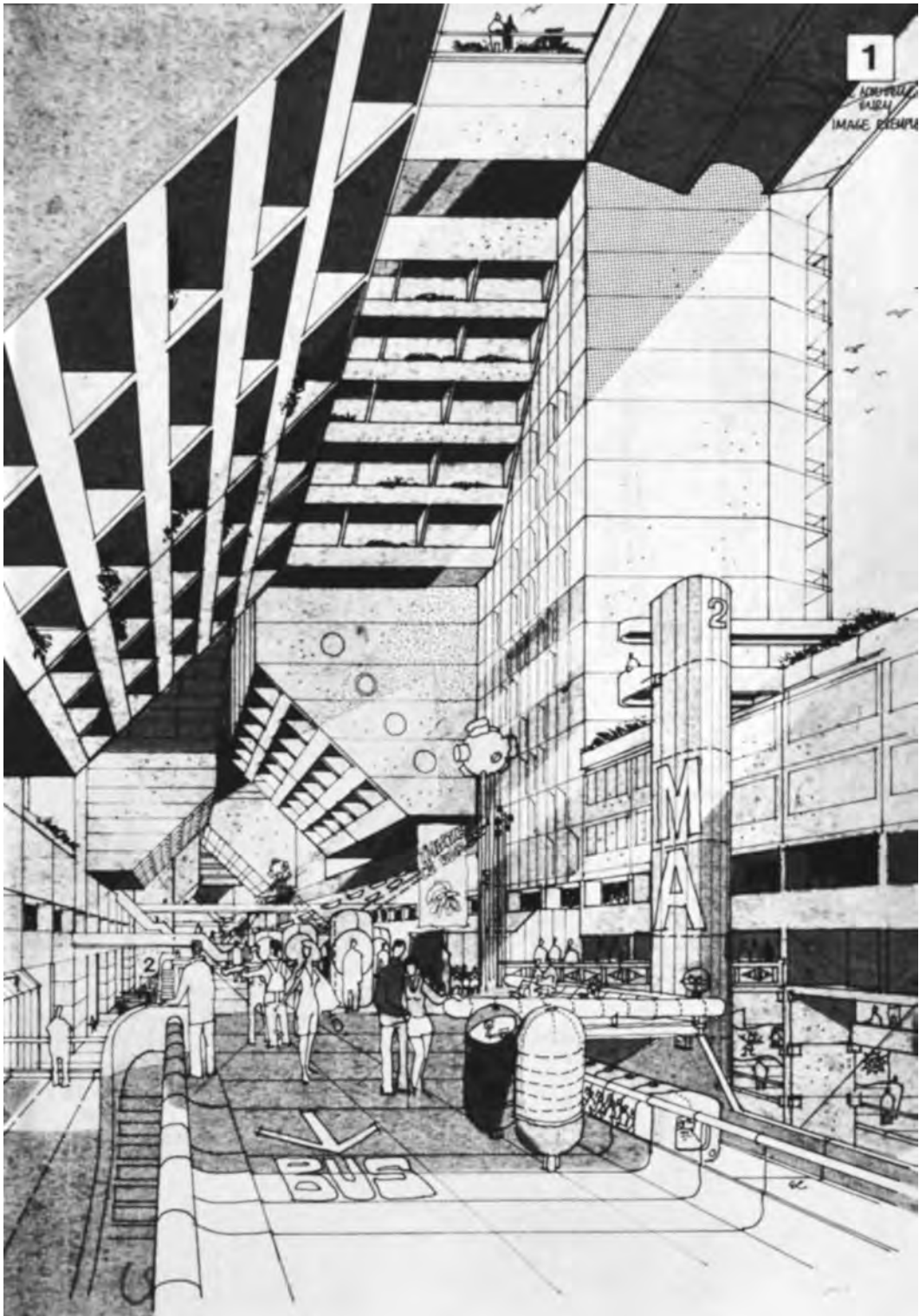
Figure 5.8. Proposal for the New Town of Évry from the competition for Évry I, 1971–72, by Paul Chemetov, Georges Loiseau, and Jean Tribel (AUA), together with Taller de Arquitectura—Ricardo Bofill, Jean Ginsberg, and Martin van Treeck. Archives nationales, France, CAC 19840342/324.

France in the thrall of national modernization. Optimistic forecasts legitimized a projected size of one hundred thousand inhabitants for the New Town, located in the middle of a still largely rural region. The plan was drastically scaled down in the mid-1970s, and all that remained of the ambitious plans thirty years later was a small municipality of 13,500 inhabitants with a new name, Val-de-Reuil. Despite this failure when compared to large French New Towns such as Cergy-Pontoise, its architecture and urbanism—some of which got built—still embodied high hopes for the creation of a better kind of city.[101]

These aspirations began with the very first proposals for the New Town, developed by the young collaborative architects' office Atelier de Montrouge.[102] The office was created in 1958 by Pierre Riboulet, Thurnauer, Jean-Louis Véret, and Jean Renaudie, graduates from the ENSBA who shared leftist political affiliations. The office, whose collaborative nature was itself already subversive in the reigning architectural climate, was at the forefront of the younger generation of French architects who eventually overturned the Beaux-Arts system.[103] Atelier de Montrouge was first commissioned for Le Vaudreuil in 1967, when the team still included Renaudie. After his departure the following year, the three others continued to work on the New Town plan (until 1972), now in collaboration with the official study team, the Mission d'étude de la ville nouvelle du Vaudreuil.

The architects proposed not so much a master plan as a series of theoretical arguments about the nature of the future city (Plate 10). Their drawings channeled some of the utopian concepts in Constant Nieuwenhuys's New Babylon and Yona Friedman and Nicolas Schöffer's "spatial urbanism," in particular their assertion that freedom, change, and spontaneity were the basic ingredients of urbanism.[104] They also took inspiration in megastructures such as those proposed by Alison and Peter Smithson for the Golden Lane and Berlin Hauptstadt competitions and the concepts further developed by Candilis-Josic-Woods, who replaced the rigidity of functionalist space with a complex, flexible, and open structure that gave some form of agency to its users. In the late 1960s, such modernist technological utopias escaped the total condemnation that hit the *grands ensembles*, but they were nevertheless increasingly faulted for their social irresponsiveness. In the proposal for Le Vaudreuil, such utopian ideas were meshed with heightened social concerns and sociological theorization. The architects suggested a networked urbanism that encouraged individual mobility and flexible forms of sociability. At the same time, they envisioned an alternative kind of urbanity in which the intimacy of social life would be fostered by the structure of an all-encompassing environment.

After the official establishment of Le Vaudreuil's multidisciplinary study team in 1968, the work of the architects was subsumed within this group. Led by Jean-Paul Lacaze, the team included some architects and planners (for executive work and technical detailing), a geographer, a landscape architect, an economist, and several sociologists, with whom the Atelier de Montrouge worked most closely.[105] The preliminary studies were primarily economic,

demographic, and geographic. Rather than to pursue studies geared toward urbanism, the sociologists were mandated to reflect on the methodology of the planning process itself. According to Gérard Héliot, this encouraged them to think outside of their special expertise and reflect more globally, "almost philosophically," on the project. As such, their role quickly changed and they began to synthesize the team's reflections on the city and its goals for the project. And as planning ideas became more concrete at later stages, their responsibility became increasingly focused on *programmation*.[106] Across this changing involvement of sociology, there was a strong alliance between the sociologists and the architects of the Atelier de Montrouge. Both parties insisted that the whole team sit together to "theorize the project globally" before detailing any plans.[107]

The urbanism of Le Vaudreuil was thus developed in close collaboration between the sociologists and the architects. As Héliot later recounted in an interview, "To me, it seems that the role of the human sciences, in Le Vaudreuil, has been fundamental during this whole study period. I repeat: human sciences, that is to say, a certain state of mind that was a certain way of reasoning and willingness to pursue studies that were prevalent as much with the human sciences properly speaking as with a group of architects who were particularly sociologized, if I may say so."[108] Rather than a master plan that would set the New Town in stone, the architects and sociologists proposed to provide only "the conditions of its birth and its development."[109] This led to their concept of a *germe de ville* or "embryo of a city." Instead of a normative procedure of discrete phases of development, the city could be programmed as an "organic" process in which each subsequent phase of development was to be "complete in itself" (Figure 5.9).

Le Vaudreuil was no less than a manifesto. At the basis of the team's theoretical reflection was the ambition for a radical alternative, which they described as the "choice to make a new kind of city." With a diverse and open structure that would allow freedom of choice in both lifestyle and future planning, it was to be "a combinatory, complex, and evolving city."[110] By combinatory, they meant that the sum would be greater than its individual parts and that all parts of the city would be linked to each other in a complex whole: "In the city, there are no simple objects; there is undoubtedly not even an object at all. Each element takes meaning only in combination in a much vaster whole that is itself implied at the very heart of the element."[111] This idea—both biological and structuralist in inspiration—was a direct critique of dominant French urbanism and its lack of attention to the "indispensable linkages" that make up a city (Plate 11).[112]

The notion of "combinatory" was inspired by systems thinking and computer science and directly evoked Norbert Wiener's cybernetics, not surprisingly, at the height of an architectural culture heavily attracted to such "hard sciences." It led the designers of Le Vaudreuil to develop a theoretical conception of urbanity as one of communications, patterns, elements, relations, structures. Their job, therefore, was not to design but to *program* the city. Just as
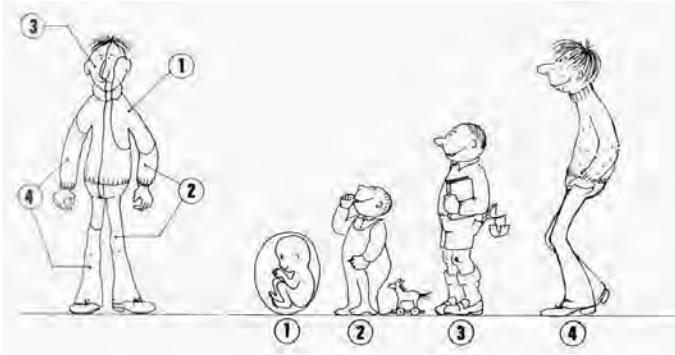
Figure 5.9. The "embryo of a city" concept for Le Vaudreuil, 1973. Rather than building the shoulder, the arm, the head, and then the other arm of the city (left), planners proposed to build an embryo that would grow into a mature city "naturally" over time (right). From *Cahiers de l'IAURP* 30 (1973): 23.

cybernetics analyzed life scientifically with the aim to eventually reproduce it, so architecture was believed to have the capacity to duplicate the ephemeral qualities and liveliness of the city. Unlike the borrowings of some other architects lured by science at this time, those of the Atelier de Montrouge were ultimately moved by the poetic and the social. Like Aldo van Eyck, they responded almost philosophically to the dominant mind-set of structuralism during the 1960s, a time that some would later refer to as "the Foucault, Lévi-Strauss, Barthes, and Lacan years."[113] Believing in the possibility to transpose such social analyses onto the structure of space, they commissioned Habraken and his Stichting Architecten Research group for a study on the patterns and "rules" for the urban organization.[114] The eventual result of such collaborations was a three-dimensional urban mesh *(maille)* that could be filled in at random to create a diversity of different dwelling conditions and public spaces. In some ways, the proposal reflected the concurrent shift in structuralism from closed to open systems as a lens of analysis. In urban planning, this meant a shift away from the hierarchy of the neighborhood unit and toward the kind of complexity for which the design of Le Vaudreuil was quickly becoming exemplary (Figure 5.10).

More than by cybernetics or structuralism, Le Vaudreuil's conception was informed by specific sociological concepts that had been circulating over the previous decade. The concrete design proposal for the New Town, as it was published in the *Cahiers de l'IAURP* in 1972, abundantly cited sociological studies such as Ledrut's "L'espace social et la ville" and Alexander's "A City Is Not a Tree." But it was the work of Lefebvre that constituted the primary source of inspiration for the architects. As pointed out earlier, Lefebvre was a key mediator of sociological concepts and critiques in the domain of architecture. His "The Right to the City" of 1968 had rapidly become a classic for the younger generation of French architects and urban planners (Figure 5.11). The ambition of the Atelier de Montrouge to design what it called the "right to architecture" was a direct transposition of Lefebvre's notion of the "right to the city." For Riboulet—who became somewhat of a regular contributor to *Espaces et Sociétés,* the critical urban sociology journal established by Henri Lefebvre and Anatole Kopp

Figure 5.10. The proposal of a three-dimensional woven structure by Atelier de Montrouge for Le Vaudreuil, 1968–72. Model photograph: Fonds ATM. Service interministériel des Archives de France/Cité de l'architecture et du patrimoine/Archives d'architecture du XX$^e$ siècle. Drawing from *Cahiers de l'IAURP* 30 (1973): 54.
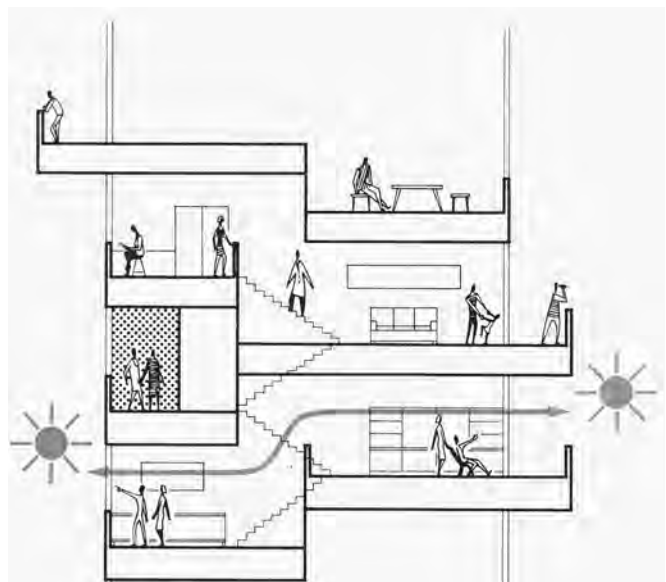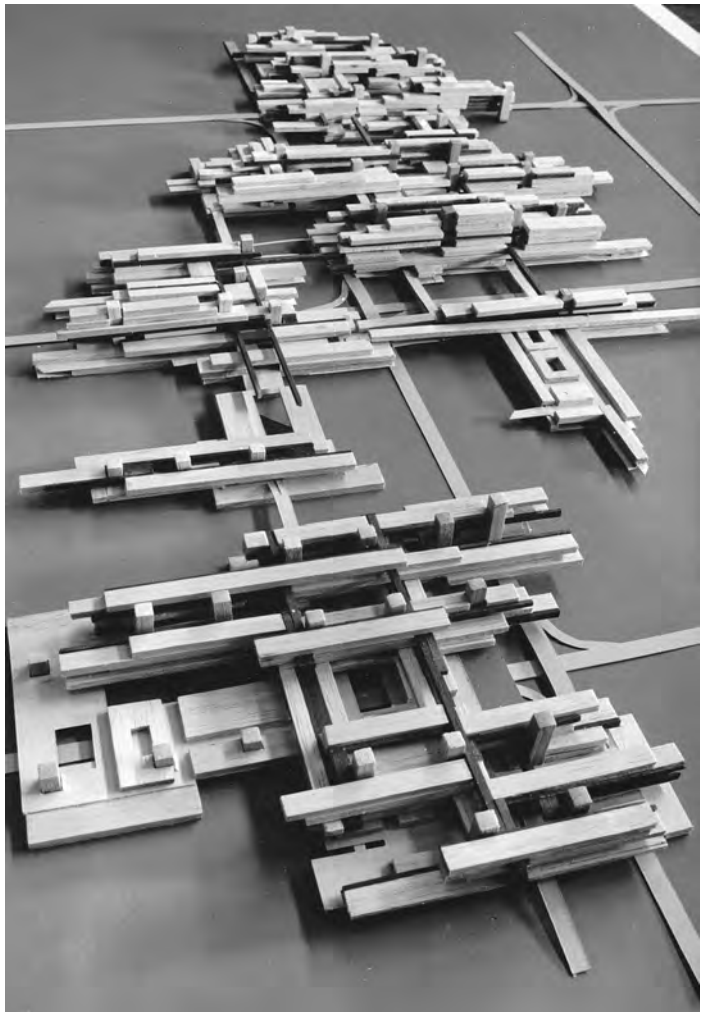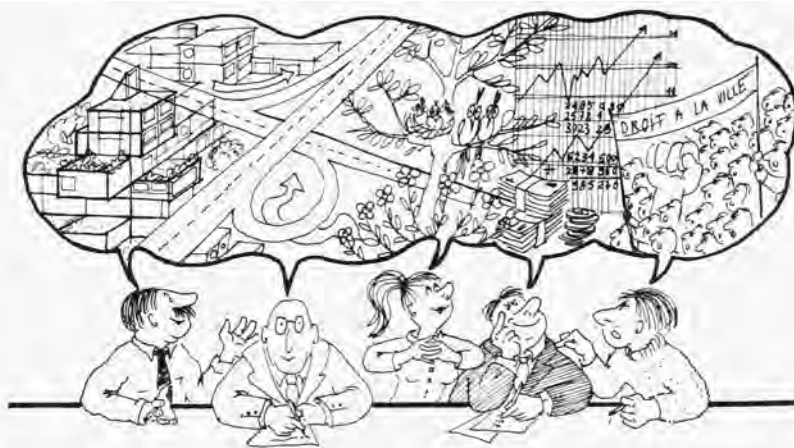
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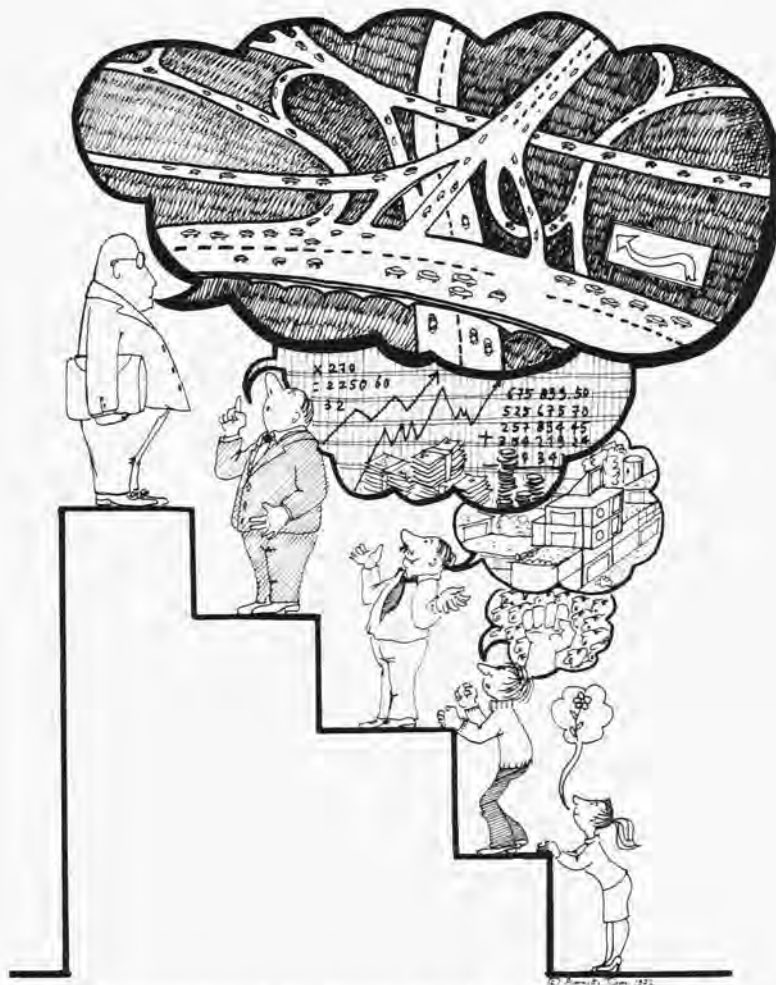
Fonctionnement d'une équipe pluridisciplinaire hiérarchisée.

Figure 5.11. Cartoon from 1973 illustrating the "nonhierarchical" working of the multidisciplinary design team of Le Vaudreuil (top), compared to that of a hierarchical one (bottom). It also demonstrated how central Lefebvre's *Le droit à la ville* was in this new way of planning (top right). From *Cahiers de l'IAURP* 30 (1973): 8.

in 1970—"the city is architecture," and thus the "right to architecture" was understood as the right of inhabitants to freely create their everyday urban environment.[115] One of the more famous phrases in Lefebvre's book read: "The right to the city manifests itself as a superior form of rights: the right to freedom, to individualization in socialization, to housing *[habitat]* and dwelling *[l'habiter]*. The right to creative work (participatory activity) and the right to appropriation (clearly distinct from the right to property) are all implied in the right to the city."[116] It was this concept of appropriation that the architects of Atelier de Montrouge and the planning team of Le Vaudreuil adopted most emphatically.

The notion of appropriation was not a novelty in French sociology. Chombart had employed it already during the 1950s in his analyses of suburban housing estates. He spoke about inhabitants' use of interior decoration in new apartments as a way to appropriate or personalize them. Although they recognized the importance of such processes, researchers such as Chombart and René Kaës did not emphasize the spatially transformative aspects of appropriation. For Lefebvre, however, appropriation was first of all a critical and creative response to the functionalist concept of need at the basis of the *grands ensembles*. Two sociological studies had provided him with the concrete inspiration for this understanding. The first was a government-funded research project on dwelling culture in French suburban single-family homes. Published as *L'habitat pavillonnaire* in 1964, with a preface by Lefebvre, the study revealed inhabitants' practical and symbolic markings of space, and demonstrated the creative possibilities and changing uses of attics, basements, garages, and front lawns as a form of spatial and social flexibility.[117] A second landmark study, by Boudon, analyzed the process by which the inhabitants of Le Corbusier's suburban housing estate in Pessac had altered their homes over the years since its construction to adapt to changing needs and popular tastes. The study resulted in his 1969 book *Pessac de Le Corbusier*, again prefaced by Lefebvre.[118] The findings of these two studies were instrumental to Lefebvre in the development of his concept of appropriation, which was "at the same time analytical, critical, and prospective."[119] Appropriation was understood as a set of creative practices that substantially transformed a given spatial setting or model without destroying it. It was this understanding that architects readily adopted at the end of the 1960s. The collective research project on "the functional needs of man" sponsored by the DGRST and in which many French architects and sociologists collaborated—from Lefebvre to Georges-Henri Pingusson—marks the impact of this adoption. The study was directly founded on the dichotomy between "architectural space" as conceived by architects, and "users' space," which was the result of "the praxis of space by its users, considering that they build their personal space by marking and appropriating it."[120]

In an explanatory text for Le Vaudreuil, titled "La mobilité dans l'architecture en tant que moyen d'appropriation," Riboulet cited Lefebvre's concept of appropriation as he had formulated it in *La vie quotidienne dans le monde moderne*.[121] The essay, written in 1968, celebrated

the creative and transformative characteristics of appropriation in architecture. At this time, the Atelier de Montrouge was also explicitly inspired by Boudon's study of Pessac.[122] The architects thus linked appropriation directly to the architectural conception of Le Vaudreuil as an open, free, and mobile urban space. Freedom and structure were reconciled in a similar way as they had been in Yona Friedman's "spatial urbanism," namely, by means of an overarching structure that would allow the free and adaptable montage of elements and thus changing activities or functions. Only, and importantly, the overarching framework was eliminated here. The solution the architects sought would "need to allow for 'mounting' and 'dismounting' the structure of the city; it will thus need to allow inhabitants to act on this structure, in fact to create it within a [certain] language so that the coherence and cohesion of the city is maintained in all possible configurations."[123] What was needed instead of a megastructure was *programmation:* a set of rules that would allow fixed elements—necessary because of technical demands—to remain as constraints but would in turn facilitate mobile elements as the tools of individual appropriation.

The planning team and the architects of the Atelier de Montrouge explained that one of their official goals was "to allow as early as possible the appropriation of the city by its inhabitants."[124] As such, in the eventual plan for Le Vaudreuil presented in 1972, Lefebvre's notion of appropriation found formal expression in architectural flexibility and complexity. But these formal characteristics were only the visible manifestation of an underlying principle, which was to conceive of the city the way computer scientists designed programs: not as fixed zones of activity, but as a set of rules allowing games to be played with indeterminate outcomes. This principle was the crux of a radical critique of dominant planning methods, denouncing the belief in a determinate, linear relationship between users' needs, architectural form, and function.[125] Structural openness and architectural complexity were seen as facilitating qualities for the participatory game of urban life, in all its unfinishedness, indeterminacy, and spontaneity. For Renaudie, architecture was "the physical form which envelops human lives in all the complexity of their relations with their environment," and therefore it needed to be as complex as the life inside it.[126] And by "giving the city 'to make' to its inhabitants," it would be naturally *évolutive,* continually transformable by social use.[127] In short, while formal complexity became the symbolic carrier of intentions to create a new kind of city, *programmation* was the underlying rationale.

This wealth of cybernetic, sociological, and philosophical ideas remained to some extent in the eventual planning of Le Vaudreuil when the study team was officially transformed into a planning institute charged with execution in 1972.[128] The official planning credo included one crucial point: "to make possible the appropriation of the city by its inhabitants by means of their participation in the conception of their living environment, as such breaking with a taken-for-granted urbanism." Consequently, planners contended, "in the domain of relationships with

the inhabitants, it has been deemed essential to abandon traditional urban planning methods and to recommend a collective practice between designers, specialists, and users."[129] Nevertheless, instead of a direct transfer of agency toward the individual, this "collective planning practice" first of all entailed novel ways to entice people as consumers in search of a lifestyle. With the 1972 advertising slogan "Change life, come live at le Vaudreuil!" ("Changez de vie, venez vivre au Vaudreuil!"), the New Town located itself at the center of a growing environment-driven debate about the need for new, alternative urban lifestyles.[130] As such, the "socioarchitectural utopia" of the Atelier de Montrouge's project for Le Vaudreuil—despite not being executed as planned—was exemplary of how social critique, heightened by sociology and smoothed by consumerism, entered into French planning. The development of state-led urban sociological and architectural research and methods such as *programmation* had fundamentally contributed to this kind of experimentation, which would quickly peter out over the following decade.