As I read this plan, the thought occurred to me that perhaps it was meant to be ironic. Irony is a witty denial of that which is expressed, without, however, being an affirmation of the opposite. Whenever I came upon facts in the book—of which there are not many—I wondered whether the author was really serious or whether an extremely clever counter-meaning was not to be detected between the lines. Schiller has Wallenstein say:

> If the idea were not so damnably clever,
> One would be tempted to call it downright stupid.

Unfortunately I cannot bring myself to consider the ideas in the book as "damnably clever." After all, I myself stroll along the very street which Le Corbusier calls with kindly condescension the "pack-donkey's way." Therefore he relieves me—polite man that I am—from the temptation of applying Wallenstein's words to his book on city planning. Yet I ask myself whether it was the city planning of the past which followed the ass's way, or this enthusiastic post-industrial apostle of technology.

FROM THE "CITY FOR 3 MILLION INHABITANTS" TO THE "PLAN VOISIN" (1968)

Stanislaus von Moos

No matter how objective and scholarly a discussion of Le Corbusier's urbanism might attempt to be, it will necessarily be colored by mixed feelings of admiration and disillusionment. To have been a pioneer and a precursor of modern town planning is no longer an indisputable guarantee of glory. The worldwide impact of the Ville Contemporaine [Fig. 7] and the Plan Voisin upon the thinking of several generations of planners is as obvious as it is embarrassing to the historian: he has to live with the fact that contemporary urbanism has caught up with and indeed partly compromised the dreams of the 1920s. What was then an Olympian vision of a "New World" has become in the fifties and sixties an easy and often fatal policy of urban reform.

However, to lay the shortcomings and failures of recent urban renewal and other large-scale developments at Le Corbusier's doorstep is unfair.[1] It is too simple to judge an idea by the consequences it may have had. To use him as a scapegoat for current urban diseases is to avoid recognizing the real dynamics that shape the urban environment: socio-economic forces, institutional patterns and ideology. At an early date, Le Corbusier created an imagery for these forces—but he has not brought them to life.

He may be blamed for having accepted these forces as guidelines of action, and for having elevated them to the level of universal and

"From the 'City for 3 Million Inhabitants' to the 'Plan Voisin. " From Stanislaus von Moos, *Le Corbusier: Elemente einer Synthese* (Frauenfeld and Stuttgart: Verlag Huber & Co., AG., 1968), pp. 179–204. Reprinted by permission of the author and publisher.

[1] For a good presentation and discussion of the principal English and American criticisms of Le Corbusier's urban theory, see Norma Evenson, "Le Corbusier's Critics," in her *Le Corbusier: The Machine and the Grand Design* (New York: George Braziller, 1969), pp. 120–22. The following chapter is based on the revised and enlarged version of my monograph *Le Corbusier—Elemente einer Synthese* (Frauenfeld and Stuttgart: Verlag Huber, 1968), which will be published by MIT Press in 1975. Quotations from Le Corbusier are taken from the original French editions of his works and translated by the author.

natural laws—as indeed he has. At the same time it has to be recognized that the power of creative thought is a matter which lies beyond moral judgment. The act of giving intellectual structure and visual form to facts which would otherwise have remained hidden in the complexity of social and cultural life demands respect, even if this intellectual structure and plastic imagery do not embrace the totality of the problems involved, and even if we cannot concur with the implicit choice of moral, social and political priorities which underlie Le Corbusier's early radical proposals for urban reform.

Thus, two things must be undertaken. First, we have to retrace the outstanding features of that epic and utopian dream of the Radiant City by identifying some stages of its evolution and some of its historic roots. Secondly, we must ask the question what does this dream mean in broader cultural and ideological terms, and which fundamental ideas are expressed and thus consciously or subconsciously propagated through this urbanistic theory and art?

The mechanics of urban life had been one of Charles-Edouard Jeanneret's major concerns since 1910.[2] But again, as in the area of architecture, the leap from study and speculation to creative invention occurred only after 1920. In 1922 Le Corbusier was invited to submit an urbanistic project to the *Salon d'Automne* of that same year. Asked by the architect what he meant by "urbanism," Marcel Temporal, the organizer of the exhibit, explained that he was interested in benches, kiosks, street lamps, signposts and billboards. "Look, why don't you design a fountain for me?" Le Corbusier accepted: "All right, I will make a fountain, but behind it, I will place a city for three million inhabitants." [3]

The project was entitled Ville Contemporaine. It was not to be understood as a utopian project for a distant future, but as the model of a contemporary city: "This is what confers boldness to our dreams: they can be realized." [4] Nevertheless, the Ville Contemporaine was visionary in its outlook and permeated with the idea that in order to change present conditions one must have a clear goal. Obviously this goal could not be attained in a day. Yet Le Corbusier insisted that at least from a technical point of view the project was immediately workable.

He started from scratch, as he had done earlier for the Citrohan house [Fig. 6]. He created a model situation which was to be universally adaptable. "The goal is not to overcome the preexisting state of things but to arrive, through a rigorous theoretical structure, at the formulation of fundamental principles of modern urbanism." [5]

The plans were exhibited at the 1922 *Salon d'Automne* without any

[2] A paper on the town planning of La Chaux-de-Fonds, which was written by Le Corbusier in Munich in 1910, seems to be lost. See Jean Petit, *Le Corbusier lui-même* (Geneva: Rousseau Editeur, 1970), p. 38.

[3] Le Corbusier, *Oeuvre complète 1910–1929*, 6th ed. (Zurich: Les Editions Girsberger, 1956), p. 34.

[4] Le Corbusier, *Urbanisme* (Paris: Les Editions G. Crès et Cie., 1925), p. 135.

[5] *Ibid.*, p. 158.

commentary. As one would expect, they aroused as much indignation as enthusiasm. Much of the discussions that took place during and after the exhibition is summarized in the book *Urbanisme* published in 1925. But there is more: unlike *Vers une Architecture*, which is a journalistic collage of rhetorical assertions, *Urbanisme* offers a thorough documentation and discussion of the facts upon which Le Corbusier's theory is based.[6]

He opens his line of reasoning with general aesthetic and moral postulates borrowed from history. But from the very first pages his remarks reflect that explosive mixture of love and animosity, of enthusiasm and revolt, which characterized his relationship with Paris, its history, and its current dramatic situation. In order to give his theses the strength of imperative postulates, he cites statistics of the demographic explosion and of the problems of transportation in the Parisian region. To this documentation he adds newspaper excerpts testifying to the state of human and social misery in the capital at a time when postwar parades were marching through the great avenues.[7] It was the Paris of dust and of air pollution, the Paris of tuberculosis and of slums, and also the Paris of stagnant customs and of petit-bourgeois conventions which provided the background for his categoric proposals of urban reform.

It is true that the Ville Contemporaine of 1922 was conceived as an abstract model of urban reform and not as a remedy for the specific problems of Paris. Nevertheless, it is as directly dependent upon the situation of Paris as Tony Garnier's Cité Industrielle (1903) was based upon that of Lyon or as Sant'Elia's Città Nuova (1914) was inspired by Milan and its railroad station. Despite its absolute and general character, the Ville Contemporaine is partly to be understood as a response to the immediate situation of Paris after the war and it has its roots in a number of earlier, but not quite as radical proposals for the urbanistic reorganization of the French capital.

The functional program of the Ville responds to the immediate needs of postwar Paris for large-scale housing, office buildings and a new traffic pattern. These needs were more urgent now than ever, but they were not new. Early in the century they had generated a number of projects which, however, were never realized. Most important among these were Eugène Hénard's proposals, entitled *Etudes sur les transformations de Paris*, published in eight fascicules between 1903 and 1906.[8] Hénard (1849–1923), a professor at the Ecole des Beaux-Arts in Paris, had worked since 1882 for the Travaux de Paris, the office in charge

[6] Cf. Maximilien Gauthier, *Le Corbusier ou l'architecture au service de l'homme* (Paris: Editions Denoël, 1944), pp. 86–107, and Reyner Banham, *Theory and Design in the First Machine Age* (London: The Architectural Press, 1960), pp. 248–56.

[7] *Urbanisme*, pp. 97–133.

[8] The importance of Hénard as a source for Le Corbusier's urbanistic concepts has been correctly emphasized by Peter Serenyi in his review of the original edition of my monograph on Le Corbusier. See *Journal of the Society of Architectural Historians*, XXX (1971), 255–59. For Hénard see Peter M. Wolf, *Eugène Hénard and the Beginnings of Urbanism in Paris, 1900–1914* (Paris: Centre de Recherche d'Urbanisme, 1968), with complete bibliography.

of municipal architecture. Due to his experience as a municipal architect and to his involvement in the planning of the Paris world fairs of 1889 and 1900, he was the outstanding technical expert in the field of town planning at that time. As the Ville Contemporaine and the Plan Voisin of 1925 demonstrate, Le Corbusier was more than aware of Hénard's work, although of course he was far from Hénard's taste and stylistic outlook. While the need for large open spaces and efficient transportation was clearly anticipated by Hénard, he had embedded these postulates in the fantastic retrospective imagery of Parisian *fin-de-siècle* architecture. On the other hand, Le Corbusier stated the problem of Paris not only in terms of new social requirements and new transportation techniques; he aimed at an urban form consistent with the "spirit of the age."

Next to the grandiose scheme of the Ville Contemporaine Le Corbusier exhibited in 1922 a small sketch proposing an adaptation of the plan to the specific situation of Paris.[9] In 1925, the reorganization of Paris became the great issue. In a sidewing of the *Pavillon de l'Esprit Nouveau* at the *Art-Déco* exhibition[10] he displayed a large diorama of the Ville Contemporaine facing another, similar diorama of what he called the Plan Voisin of Paris. This Plan Voisin brings the "Ville" back to where it originated: to the city of Paris, *oeil de l'Europe*.

The name, Plan Voisin, points to one of the essential features of the project: the fact that it is based upon a new traffic pattern. In the solemn conviction that the present crisis of the French capital, as well as its need for future transformation, were a direct consequence of motorized traffic, Le Corbusier had sought financial support for the *Pavillon de l'Esprit Nouveau*, and the town planning project displayed there, from various automobile firms: Peugeot, Citroën and Voisin. It was Gabriel Voisin who promptly granted him patronage for the project and lent his name to it.

The project is radical indeed. To render Paris habitable, Le Corbusier recommends massive surgery and sets as a preliminary condition of any renewal the total "tabula rasa" between the Seine and Montmartre. Only a few isolated buildings—the Louvre, the Palais Royal and the Place Vendôme (of which he was particularly fond), the Place de la Concorde, the arc de Triomphe, plus a few selected churches and town houses—would be spared. The architect declares that in this way "the historical past, a universal patrimony, is respected. More than that, it is saved."[11] Yet he adds, more modestly: "The Plan Voisin does not claim to provide

[9] *Urbanisme*, p. 265.

[10] For a general discussion of the *Esprit Nouveau* Pavilion in the context of this exhibition, see von Moos, *Le Corbusier*, pp. 96–99.

[11] *Urbanisme*, p. 272. Le Corbusier proposes here that the important monuments of the past should be treated as *objets trouvés*, or—to quote his own term—as *objets à réaction poétique* within the vast open spaces of the new, green city. A similarly selective and "ironical" approach to the urban past has been suggested by Frank Lloyd Wright in *An Organic Architecture. The Architecture of Democracy* (London: Lund, Humphries & Co., Ltd., 1939). The cultural and ideological implications of this approach have been discussed by Manfredo Tafuri, *Teorie e storia dell'architettura*, 2nd ed. (Bari: Editori Laterza, 1970), pp. 68ff.

a complete solution to the problems facing the center of Paris."[12] Its prime intention obviously was to move the urbanistic discussion from the level of small and uncoordinated renovations to a level in keeping with the times,[13] where housing, business accommodation and traffic are aspects of one great problem: urbanism. Nobody regrets that this monstrous, Promethean project was never executed. But everybody will admit that it exerted, decades later, a lasting influence upon large-scale planning throughout the world, and thus a brief survey of its dominant characteristics is appropriate.

THE TOWERS

In 1921, Le Corbusier had already published his first ideas of a tower city in *l'Esprit Nouveau*.[14] Laid out along a cross-shaped plan, the towers were to reach a height of sixty stories (that is to say about 825 feet), and to be placed at a distance of 800 feet from each other. He comments that the idea had been suggested to him by Auguste Perret, but when Perret's first drawings were published in August 1922, the difference between the two concepts turned out to be striking.[15] In terms of style, Perret's towers are conventional skyscrapers, differing from those of New York or Chicago only in that they are visually separated and standing free in open space like posts alongside the road. While this urbanistic setting corresponds to Le Corbusier's concept, the style must have appeared obsolete to him, and he condemned Perret's project altogether,[16] including the only really progressive aspect of the proposal, namely the elevated bridges connecting the towers.

It is clear that in Le Corbusier's view, Perret's solution was not "pure." In order to be "pure," the skyscraper needed a cruciform plan, straightforward cubic elevations and fully glazed surfaces. And to provide good lighting of the interiors, these surfaces were to be *à redents*, i.e., organized in terms of bays and recesses which enabled maximum sight and lighting. Neither the cruciform shape nor the bays were Corbusier's invention—he may have been aware of Sullivan's cruciform skyscraper projects and the frequent use of bays in Chicago around 1890[17]—but the rigid elementary geometry of this type *was* new, and it was

[12] *Urbanisme*, p. 273.

[13] *Ibid.*

[14] *L'Esprit Nouveau*, 4 (January, 1921), pp. 465ff.

[15] Cf. Jean Labadié, "Les cathédrales de la cité moderne," *L'Illustration*, August, 1922, pp. 131–35.

[16] Le Corbusier, *Vers une Architecture* (Paris: Les Editions G. Crès et Cie., 1923), p. 44. For Perret's towers of 1922 and 1925 (the latter based on Le Corbusier's cruciform skyscrapers) see Le Corbusier, *Almanach d'architecture moderne* (Paris: Les Editions G. Crès et Cie., 1926), p. 187.

[17] Cf. *Urbanisme* and *L'art décoratif d'aujourd'hui* (Paris: Les Editions G. Crès et Cie., 1925), where Le Corbusier published several photographs of early American skyscrapers—none however by Sullivan.

closer to the aesthetics of machines or grainsilos than to anything which had been proposed in the field of architecture before 1920.

Thus, the cruciform skyscraper (for offices) and high-density apartment-blocks (for dwellings) appeared the only possible rational solution to the overwhelming evidence of facts. These facts were not new. Overcrowding, social chaos and traffic congestion had been the characteristic diseases of large cities since the beginning of industrialization. But while the traditional remedy of planners ever since Ebenezer Howard had been decentralization and spread,[18] Le Corbusier proposed concentration and increased densities. He shared with the Garden City Movement the profound belief in the necessity of greenery and open space for the well-being of urban man. But Paris had imbued him with an equally strong belief in urban density as the premise of cultural progress, and he thus rejected the reformist trends toward limitless expansion and multiplication of individual homes. Le Corbusier argued that even if the highly concentrated metropolis no longer works, it should not simply be dissolved, as advocated with such success by the exponents of the Garden City Movement or by Frank Lloyd Wright in his Broadacre City. Indeed, Wright's city of the future has since become the American "sub-suburban present," [19] and this was precisely what Le Corbusier wanted to avoid. If the modern metropolis does not work anymore, it should be brought back under architectural control and equipped with proper tools. It should remain a cultural and architectural "whole," clearly distinct from the rural surroundings.

Hence he pursued two goals, which seem to be mutually exclusive: to increase the density of the urban fabric, to reaffirm the supremacy of its business center, and yet at the same time to bring greenery and nature back to urban life. In his description of the Ville Contemporaine,[20] the two goals appear as aspects of one and the same postulate. On the one hand, after a quick sociological analysis of urban populations, Le Corbusier aims for an increase of their density; on the other, he aims for a multiplication of green spaces.

NATURE AND SPACE

At the foot of the apartment houses and office towers in the Ville Contemporaine, there are vast open spaces. The sum total of the city's soil must be transformed into a vast recreation zone: 95 percent of the soil in the business district and 85 percent in the dwelling area were to be

[18] Ebenezer Howard, *The Garden Cities of Tomorrow* (London: S. Sonnenschein & Co., Ltd., 1902). For the influence of the English Garden City Movement on Le Corbusier's early work see Brian Brace Taylor, *Le Corbusier at Pessac* (Cambridge, Mass.: Carpenter Center for the Visual Arts, Harvard University, 1972), pp. 4–5.

[19] See Lewis Mumford, "Megapolis as Anti-City," *Architectural Record*, December, 1962, p. 101.

[20] *Urbanisme*, pp. 157–69.

turned into public parks.[21] Thus it was a matter of restoring without delay the "conditions of nature" in the city.

Why this obsession with parks and greenery? The answer lies partly in the context of Paris. In order to give one's proposals credibility in the eyes of the public, it is necessary to legitimize them in terms of widely shared ideals. Le Corbusier was very well aware of that. His insistence upon the necessity of large public parks is a direct response to the traditional rhetoric of progressive planners and politicians in Paris. To conceive of the city as one vast recreation zone meant not only to be socially minded, but also to be in keeping with the city's splendid past: it meant bringing the work of the French kings and emperors to its grandiose fulfillment. The Tuileries, the Jardins du Luxembourg, etc., time and again reproduced in Le Corbusier's books, are constantly called upon as points of reference for his plans.[22]

He spices his argumentation with more personal touches. Recalling his trip to the Orient he quotes a Turkish maxim: "Where one builds, one plants trees"—and he adds sarcastically: "We root them up." [23] Plants and greenery appear to him as the biological guarantee of sound urban living. Parks are the "lungs" of the city, its respiratory system. But he pushes his point further: the city itself becomes one great "lung." For him, respiration is not merely a physiological phenomenon; it is a process that involves all his sensitivity and imagination. More than his lungs, his eyes want to "breathe," as it were. He argues of course on biological grounds, but ultimately the overwhelming presence of plants and trees in his ideal city is a matter of cultural idealism rather than physical well-being. It is an aspect of his almost mystical belief in nature, deeply rooted in his mind ever since the early years in La Chaux-de-Fonds.

But while his early studies were characterized by a sympathy for the laws governing organic growth in plants, leaves, flowers, trees, he now developed a hunger for grandiose vistas and the sensation of limitless space. He may have had this sensation on the Jura heights; now, in Paris, it was the Eiffel tower which provided the inspiration:

> "When I ascend, I experience that feeling of serenity; the moment becomes joyful—solemn too. Step by step, as the horizon rises higher, it seems that the mind is projected into wider trajectories: when everything becomes physically broader, when one's lungs inhale more vehemently, when the eye takes in vast horizons, the spirit is animated with nimble vigor; optimism reigns." [24]

This love of panoramic views, this craving for vast horizons, became so compelling that Le Corbusier soon lost sight of the starting point of his belief: the reestablishment of natural conditions in the modern city.

[21] *Ibid.*, p. 165.

[22] *Ibid.*, pp. 192f. and *passim*.

[23] *Ibid.*, pp. 60 and 71.

[24] *Ibid.*, p. 176.

Indeed, eight hundred feet above ground, one no longer perceives the rustling of the leaves at the foot of the towers. Both the green vegetation and the grayish urban carapace grow faint; they are no more than a pleasant decorative carpet. Nature appears under the grandiose (although by no means vital) form of distant perspectives and infinite spaces. One may ask why the occupants of the business center must have parks at the foot of the skyscrapers, when the system of communication and transportation is perfected to the point where no one is likely to linger in the parks which cover 95 percent of the grounds in the center of the city, except perhaps for a quick picnic during the lunch hour when the weather is fair.

In the residential areas the large parks had a more plausible function. Here the height of the buildings reaches no more than six stories of duplex apartments; the contact with nature is thus maintained. The apartment houses are either planned around vast interior courtyards or arranged in a linear pattern of setbacks (*redents*). This latter form is, once again, directly based upon an idea by Hénard; even the name, *rue à redents*, is borrowed from him.[25] The sequence of projections and recessions along the streets had a double function: to insure a maximum of open view to each dwelling and to bring diversity and rhythm to the image of the city.

Compared with the business center these residential quarters have measure and scale. But thirty years later, when the great urban renewal projects in the U.S. were drawn up, architects had forgotten Le Corbusier's villa-blocks (Immeubles Villas [Fig. 8]) as well as the *Esprit Nouveau* Pavilion, only to return to his cruciform shaped office towers which now became the perverted model for social housing.

THE AXES AND THE MYTH OF SPEED

With a grand possessive gesture, Le Corbusier's city is inscribed into the landscape. Its axes reach out toward the four corners of the horizon. The spirit of Versailles is reborn here; and so is Baron Haussmann's grandiose vision, partly realized in his reorganization of Paris at the time of Napoleon III.

For Le Corbusier the rigor of the axis constituted an essential principle, both moral and aesthetic. "Man walks in a straight line because he has a goal and knows where he is going." [26] The straight line is the line of man, the curved line that of the donkey. Le Corbusier rejected the romantic and picturesque idea of basing urban design on the random forms resulting from the growth of medieval cities; in his opinion this

[25] See Peter M. Wolf, *Eugène Hénard*, fig. 23. Hénard's term however is *boulevard à redans*. The first version of *rue à redents* has been published by Le Corbusier in *L'Esprit Nouveau*, p. 469, which was then reproduced in *Vers une Architecture*.

[26] *Urbanisme*, p. 3.

was the principal error of Camillo Sitte, "an intelligent and sensitive Viennese who simply stated the problem badly." [27]

In his eyes, the chessboard or gridiron plan was the only correct way of approaching the problem of city planning, and this point can indeed be substantiated by historic evidence. Thus we find in *Urbanisme* the layouts of a large number of orthogonal cities, from the thirteenth century *bastides* in the south of France, to the plans of American colonial cities of the sixteenth, seventeenth, and eighteenth centuries, including L'Enfant's plan of Washington, D.C.[28] One gridiron plan however does not appear among the documents published in *Urbanisme*, although it must have played a major role in the determination of Le Corbusier's urbanistic preferences: the plan of his native town of La Chaux-de-Fonds. The town had been heavily damaged by a fire in 1794, and it was then rebuilt according to a "plan américain" with a grand axis in the middle, the Avenue Léopold-Robert, where, incidentally young Charles-Edouard Jeanneret had spent a part of his youth.

Ultimately Le Corbusier's obsession with monumental axes was not based upon an abstract theoretical postulate, but upon an urban experience which had to be preserved. It comes as no surprise that the Baron Haussman was the subject of his admiration as well as of his constant criticism: in Le Corbusier's eyes, the great axial thoroughfares which Haussmann pierced in the Parisian maze from 1853 to 1868 were the answer to an imperative necessity, even though he did not sympathize with Napoleon III's utilization of the boulevards and avenues for parades and military displays.[29]

Time and again he uses Haussmann's approach to the renewal of Paris as the background for his own argumentation. In 1937, for instance, Le Corbusier pointed out that in Baron Haussmann's city, "tradition required that all straight avenues should be climaxed by a set piece: the Opéra at the end of the avenue of the same name, the church of Saint-Augustin at the end of the boulevard Malesherbes." [30] Instead, Le Corbusier wanted traffic arteries that run through the entire city without interruptions, such as the Champs-Elysées, which terminates at the Place de la Concorde.[31] In short, for Le Corbusier, the straight axis was no longer a mere formal principle; it was justified only as a tool of modern

[27] *Quand les cathédrales étaient blanches* (Paris: Gonthier, 1965), p. 58 (first edition 1937). However, as Maurice Besset has shown in *Qui était Le Corbusier?* (Geneva: Editions d'Art Albert Skira, 1968), p. 151, Le Corbusier's conception of the city as a picturesque sequence of grandiose vistas was deeply influenced by Sitte. This is well documented in almost all of his early urbanistic studies. His contempt for Sitte's theory may partly be the result of the total deformation it had undergone in the French version of *Der Städtebau*. Cf. George R. Collins and Christiane Crasemann Collins, *Camillo Sitte and the Birth of Modern City Planning* (London: Phaidon Press Ltd., 1965), pp. 63–72, 145.

[28] *Urbanisme*, pp. 5–11, 77–86.

[29] *Ibid.*, p. 255. For his later comments on Haussmann, see *La ville radieuse* (Boulgne-sur-Seine: Editions de L'Architecture d'Aujourd'hui, 1935), p. 209.

[30] *Quand les cathédrales étaient blanches* (Paris: Gonthier, 1965), p. 59.

[31] *Ibid.*, p. 60.

traffic. No wonder that, in 1936, he admired the ten-mile long avenues of Manhattan, symbols of an efficient traffic pattern determining the entire physiognomy of a metropolis.

In order to articulate the system of the axes in the Ville Contemporaine and in the Plan Voisin, Le Corbusier returned, however, to the most classical means. The main axis of the "Ville" is a superhighway laid out between two triumphal arches. A closer look at the obelisks, columns, monumental domes along the main traffic arteries as well as the general layout reveals a composition worthy of any Beaux-Arts student.

Once again, the ideals of the classical tradition are intermingled with those of the machine age. One has to consider here the quasi-magical character that Le Corbusier ascribed to speed. "The city that has speed has success," he claims.[32] This sounds like a futurist slogan; and indeed Sant'Elias' projects of about a decade earlier were based upon a similar worship of *velocità*. However, it seems doubtful whether the Città Nuova was an actual source for the Ville Contemporaine. Le Corbusier hardly ever refers to the Italians, but on the other hand he was familiar with the rhetoric of French automobile advertisements. In *Urbanisme,* he quotes an article by one of the directors of the Peugeot plant, Philippe Girardet, who saw in the automobile the vigorous and brilliant confirmation of an age-old dream of humanity. Girardet describes man as one of the slowest animals in creation: "a sort of caterpillar dragging himself with difficulty on the surface of the terrestrial crust. Most creatures move more quickly than this biped so ill-constructed for speed, and if we imagined a race among all the creatures of the globe, man would certainly be among the 'also rans' and would probably tie with the sheep." [33] It was, of course, motorized traffic that ultimately allowed him to triumph over this deplorable condition.

For Le Corbusier, speed and motorization are factors in the "lyricism of modern times," a lyricism which is too Olympian to be judged on utilitarian grounds. One of the sketches of the Ville Contemporaine shows how the urban superhighway connects the two triumphal gates; outside of the city, where a highway would be justified, the urban axis reverts into a simple country road.

DIFFERENTIATION OF TRAFFIC LINES: THE DEATH OF THE STREET

Again, the situation of Paris forms the background for Le Corbusier's redefinition of the urban street. The traditional complexity of its functions seems obsolete to him in the age of automobile traffic. The increase of urban density and the sudden advent of motorization have turned

[32] *Urbanisme,* p. 169.
[33] "Le règne de la vitesse," *Mercure de France* (1923), quoted in *Urbanisme,* p. 182.

the street into a scene of paralyzing chaos and constant danger. So far, the argument is convincing. But for Le Corbusier, the question is not so much to analyze the crisis of the traditional urban street as to justify its radical disappearance in the Ville Contemporaine. Thus the argumentation becomes resolutely polemic when, in an article published in *l'Intransigeant* of May, 1929, he shoots red bullets at that secular element of the city, the *rue corridor*: "It is the street of the pedestrian of a thousand years ago, it is a relic of the centuries; it is a nonfunctioning, an obsolete organ. The street wears us out. It is altogether disgusting! Then why does it still exist?" [34]

Since 1924 he publicized his redefinition of the street in terms of the modern superhighway: it is a "machine for circulating" he insists, "a circulatory apparatus a kind of factory in length." [35] Hence the superhighway as the central axis of his urbanistic schemes. Hence the constant urge for separating automobile traffic from pedestrian circulation, and of layering the different levels of mechanical transportation according to function, range and speed. This latter concern is not new. The idea of a city efficiently served by a vascular system of streets, canals and tunnels is as old as scientific speculation about the city as an "organic" whole; it was one of Leonardo da Vinci's hobby-horses, as a number of famous sketches show.[36] In the 19th century the differentiation of urban traffic lines became a frequent concern in progressive town planning proposals. Around 1860, Tony Moilin, a French country doctor, proposed the construction of a city in which the streets and the trains would be arranged on different levels.[37] Whether or not Le Corbusier or, before him, Sant 'Elia knew of this project is a question of secondary importance. However, it is certain that the widely publicized urban utopias and reform projects promulgated around 1900 gave first place to the idea of the separation of traffic lines. Long before 1900, the great capitals—Paris, Berlin, London, New York, Chicago—had built their subway systems and elevated railways. In Paris, it was again Eugène Hénard who had suggested as early as 1903 a number of important urban changes in order to cope with the increasing dangers of traffic. His *carrefour à giration,* probably the first traffic roundabout in the modern sense, was designed for horse-drawn carriages; it was published by Le Corbusier in *Urbanisme* and obviously served as an inspiration for the great central station in the heart of the Ville Contemporaine.[38] While Hénard had proposed two

[34] *Oeuvre complète 1910–1929,* pp. 112f.
[35] *Urbanisme,* p. 113.
[36] The most famous are in the Institut de France, *Ms. B.,* fol. 36 r., fol. 16 r., fol. 37 v. These sketches have often intrigued modern architects and planners. For their discussion see Alberto Sartoris, *Léonard architecte* (Paris: A. Tallone, 1952).
[37] Reyner Banham, *Theory and Design in the First Machine Age,* p. 132.
[38] Cf. Peter M. Wolf, *Eugène Hénard,* pp. 49–60. Hénard's plan is illustrated on p. 111 of *Urbanisme.* For the American background, Le Corbusier seems to have used books such as Werner Hegemann, *Amerikanische Architektur und Stadtbaukunst* (Berlin: Ernst Wasmuth, 1925). An illustration on p. 53 of this book reappears on p. 144 of *Urbanisme.*

levels of circulation—vehicles on the surface and pedestrians underneath—Le Corbusier suggests no fewer than seven superimposed layers. At the lowest levels, the terminals for the main lines; above, the suburban lines; then the subway; above that, all pedestrian circulation; then the throughways for rapid motor traffic; and last, at the top, the airport. This last idea was indeed the most fantastic aspect of the project, the only one which has remained fantastic up to this day. But who is able to predict whether someday the technique of vertical takeoff may indeed bring large jetliners right into the center of great cities?

SOCIAL AND ECONOMIC ASPECTS

As to the social and economic aspects of the scheme, Le Corbusier is well aware of which card to play. He leaves no stone unturned in order to prove the great virtues of the Ville Contemporaine as a guarantor of business profits and social peace. "Paris, the capital of France, must build up in this twentieth century its position of command," [39] he announces. And the whole urbanistic imagery of the Ville Contemporaine as well as of the Plan Voisin—the huge, 800-foot-high, steel and glass office towers, lined up on the flat land between the superhighways like figures on a chessboard—is indeed a glorification of big business and of centralized state control. "But where is the money coming from?" [40] Le Corbusier was enough of a businessman himself not to be embarrassed by such a question; his closest friends from the Swiss colony in Paris were bankers after all. "To urbanize means to valorize," he proclaims. "To urbanize is not to spend money, but to earn money, to make money." [41] How? The key word is density: the greater the density of land use, the greater the real estate value. And again the reassurance: the colossal towers are not "revolutionary," they are a means of multiplying business profits.

The Plan Voisin thus characterizes itself as the ideal city of capitalism, and not of French big business alone; foreign capital should have its share in it too. This distribution of land among French, German and American trusts would, Le Corbusier argues, minimize the danger of possible air attack.[42] Around 1925 the proposal may have sounded strange at best, but it appears today as an extremely realistic anticipation of what actually has become a primary factor of urban downtown development in Western Europe since World War II: the overpowering role of foreign capital and its silent but efficient "entente" with official planning policy. In economic terms, if not in those of urban imagery and planning

[39] *Urbanisme*, p. 270.
[40] *Ibid.*, pp. 275ff.
[41] *Oeuvre complète 1910–1929*, p. 111.
[42] *Urbanisme*, p. 280.

procedure, the Quartier de la Défense north of Neuilly and other recent large-scale surgery inside Paris are based on the very forces with which Le Corbusier had hoped to put his Plan Voisin into action. However, compared with any of Le Corbusier's numerous proposals, recent business complexes such as the new Montparnasse skyscraper are piecemeal work, arrogant in scale, poorly designed and badly coordinated with the urban infrastructure and traffic pattern which played such a decisive role in the Plan Voisin and its later and more reasonable modifications.

These later modifications gradually did away with the bulky cruciform towers and suggested a smaller number of tall, Y-shaped skyscrapers to be built increasingly far from the existing center.[43] But it was the cruciform towers of 1922 which caught the imagination of two generations of planners. For example, the cruciform Place Ville Marie tower in Montreal is an office building, and thus in agreement with the function assigned to this form in Le Corbusier's early Parisian plans. Yet a multitude of large-scale, low-cost housing schemes in the U.S. adopted the cruciform shape with well-known, often more than questionable results. What has remained of the utopia of 1922 is nothing but an aesthetic formula translated into the massiveness of compact brick or masonry walls, as opposed to the reflecting glass Le Corbusier had envisaged. Furthermore, the surrounding parks degenerated rapidly either into parking lots or worse, into deserted wastelands inviting delinquency and crime.[44]

This background is likely to obscure the appropriate understanding of the social and political philosophy of the Ville Contemporaine and the Plan Voisin. They were not conceived as a mere formal exercise, but as a remedy against overcrowding, social disorder and political unrest. The housing situation in Paris was deplorable for the poor living in the center of the city, and this has hardly changed since. Plumbing, heating and electricity were scarce if not lacking altogether. Le Corbusier approaches these problems from above; he addresses himself not to the poor, but to those in command. Thus he recommends his solution not as a pretext for revolution, but as a means of avoiding it: "Architecture or Revolution. Revolution can be avoided." [45] How? Through the solution of the housing problem, which has always been perceived by the bourgeoisie as the most important, if not as the only real problem of the proletariat.

With the keen insight of a La Bruyère, he exposes in *Urbanisme* the petty distractions by which the average Parisian consoles himself on an evening in Montmartre or Montparnasse, away from the dirt and squalor of his small, badly aired and unheated apartment.[46] For Le Cor-

[43] Cf. the various volumes of the *Oeuvre complète* and Norma Evenson, *op. cit.*, figs. 16–25.
[44] For examples see Vincent Scully, *American Architecture and Urbanism* (New York: Frederick A. Praeger Publishers, 1971), pp. 166–69.
[45] *Vers une Architecture*, p. 243.
[46] *Urbanisme*, pp. 203–12.

busier, this is a mean and indecent definition of "freedom." For him, there is only one solution: "freedom through order," an order which secures an ample and flawlessly hygienic apartment for every person.[47] People, he argues, have a right to live in comfortable apartments; after working hours in the factory or office, they should be granted the pleasure of sweet reveries in the midst of nature; they should know the "essential joys" of leisure. What he promises is a weekend paradise, however a paradise where it would be easier to play a game of tennis in the parks surrounding the "villa super-blocks" than to find a café in which to have a glass of wine with friends.

It is easy enough to ridicule the ideology, but more difficult to refute it. The housing crisis was real in Paris after World War I and it called for technical and administrative action of some sort. However, the philanthropic and humanitarian idealism of Le Corbusier may sound naïve today. It is compromised by the failure of many Corbusier-based attempts to create well-being and happiness by means of large-scale physical planning alone. Moreover, we have reached a point where not only the failure, but also the apparent success of such planning principles have become a subject of concern, at least for a generation which can no longer equate human progress with the adoption of Western middle-class standards by the so-called "underprivileged." Indeed the whole philosophy of Le Corbusier's Ville Contemporaine implicitly offers a strategy for such an alignment, a strategy whose potential was hardly understood at the time, however. It is a bourgeois utopia of social order and harmony based on middle-class virtues, business ethics and modern technology; in short, a brilliant and optimistic ideological prefiguration of post-World War II reality throughout the industrialized world.

[47] The ideology of collective happiness which underlies Le Corbusier's approach has been the subject of numerous and often perceptive comments. See for instance, Pierre Francastel, *Art et téchnique* (Paris: Editions de Minuit, 1956), p. 42.

THE CITY OF DIALECTIC (1969)

Kenneth Frampton

In spite of its 1933 dedication to those in authority, Le Corbusier's book *La Ville Radieuse*, subtitled "elements of a doctrine of urbanism to be used as a basis of our machine age civilization," and published for the first time in English, as *The Radiant City*, in 1967, can be of but marginal interest to those now charged with city and regional planning. Thirty-six years after its initial appearance, however, it stands as a document of the greatest cultural importance, for not only does it illuminate the infinitely complex nature of its author's thought, but it also remains as a warning to our benighted present, rife as it is with both absurd affluence and abject poverty. Unlike *Vers une Architecture* its style is neither aphoristic nor didactic and lacking the oracular touch, it has yet to become popular. Little of its text has the necessary density and terseness to serve, out of context, as an ideological quote. In common with other works by Le Corbusier it is a diffuse and polemical book; rhetorical in its reiterations; revelatory in its illustrations. Its structure which is clearly tabulated in the first few pages bears only an elliptical relation to its actual content which, through recapitulation and transposition, reveals itself as resting on a number of separate but related dialectical themes. These themes are occasionally declared by the author as sub-headings or sub-sections within the main chapters. Thus in the introductory chapter we encounter an initial discussion of a recurrent theme; the issue of useful as opposed to useless consumer goods, while later under a crucial sub-section entitled LAWS we are pedantically instructed as to the cosmic importance of the male/female correlation. This kind of polarized theme occurs with such frequency as to suggest that the *Ville Radieuse* may be regarded fruitfully as a "city" of dialectic.

What then was the multiple argument of the *Ville Radieuse* as set out in the years 1930 to 1933? Certainly as an "ideal" city in its most

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