2 The Crises of the Modern City[1]
Place and Trajectorial Space

> As we know, the great obsession of the nineteenth century was history […]. The present age may be the age of space instead. We are in an era of the simultaneous, of juxtaposition, of the near and the far, of the side-by-side, of the scattered.
> *(Michel Foucault)*[2]

Two categories of space, the place and the trajectorial space, are paradigmatic figures of space in the modern city.[3] The two concepts articulate the contrary and irreconcilable demands and functions the city has faced since the age of industrialization. To this day, an especially conspicuous feature of our cities are areas where a conflict plays out that remains unresolved: the conflict between the spaces of habitation, of human encounter and exchange, and the 'trajectories', open spaces of traffic, which are supposed to guarantee unlimited access and unhindered passage, an undisturbed "flow" – the spaces, in a word, that I will in the following call trajectorial spaces.

Urban planning as an independent discipline came into being first and foremost as a set of procedures of the organization of space aiming to arrange various "functions", including abidance/encounter and connection/rapid transit, in one and the same space. Yet the different attempts to provide a rational subdivision, order, and "zoning" of the urban surface according to different functions, and the call for "traffic-friendly" cities in particular, in fact led to a crisis Alexander Mitscherlich aptly described as the "inhospitability" of the city.[4] The hypothesis that this effect can be attributed directly to the intrusion of the trajectorial space into the dense core spaces of the cities is supported by Marc Augé's theoretical reflections on space.[5] Even in simple geometric terms, the

1 Translation from the German by Gerrit Jackson with assistance from Johanna Blokker.
2 Foucault, Different Spaces, 1998 (1967), 175.
3 On the term "trajectorial space" cf. Vinken, Ort und Bahn, 2008, and Knoblauch/Löw, The Re-Figuration, 2020; Löw, Re/figure(e)/ation, 2020.
4 Mitscherlich, Unwirtlichkeit unserer Städte, 1965.
5 Augé, Non-Places, 1995 (1992).

"centers" or "crossroads" that are places block the axes and paths that lead from one place to another.[6] Yet what I have described as a conflict between the different "demands" on the city reaches deeper. For the city center is one of those "anthropological places" Augé has described as identical, relational, and historical to the extent that they embody the "particularity" of a city: their various elements and practices can be seen as interrelated, and they convey continuity and stability not in the form of dissociated recollection but as participation.[7] It is into the city centers, as spaces "where individual itineraries can intersect and mingle,"[8] that the trajectorial space enters and with it a new spatial category of the "non-place." For the trajectorial space can be grouped with those spaces of transit and travelling Augé has called "the archetype of *non-place*."[9] To conceive place and trajectorial space as forming a dichotomic constellation means, moreover, to acknowledge that they tend to exclude each other, rather than constituting partial spaces that integrate into a larger shared space. The conflicts of the modern city cannot indeed be resolved by shifting the distribution of "space" in favor of one or the other pole. The history of modern urban development can be read in this perspective as a series of attempts to overcome a fundamental conflict over space with inadequate means. In a study of the example of Le Corbusier, the following analysis will examine how the trajectorial space becomes the paradigm of the modern city in the functionalist utopias, and will ask which qualities and potentials for conflict break the traditional urban spaces apart. Organic urban planning sought to reconcile place and trajectory; the example of Rudolf Schwarz, one of its champions, illustrates the factors that made the failure of this reconciliation inevitable.

The trajectory is the product and the icon of traffic. Long before mechanized individual traffic becomes a mass phenomenon that defines the cityscape, "traffic" begins to change the way people think about the city. Urban planning becomes traffic planning. Modernization now means a "correction" of the city,[10] a removal of its constrictions, a process of breaking open – and that includes opening the city toward its environment. As the fortification walls of old European cities are razed, the contrast that has long defined them – that between city and country – is dissolved.[11] Industrialization and, later, a new degree of mobility give this development additional dynamism, as well as creating a double problem: the congestion of the urban core, with the attendant negative consequences for the health of its residents; and the cancerous growth of developments in the surrounding countryside. From the Garden City movement onward, all influential urban utopias seek to remedy this doubly negative balance by conceiving city and country as a unified space for planning purposes.[12] The implementation by means of urban planning of a new reality that transcends the traditional dualism culminates in the concept of the urban landscape. In 1949, the architect and urban planner Rudolf

6 Augé, Non-Places, 1995 (1992), 57

7 Augé, Non-Places, 1995 (1992), 52–55.

8 Augé, Non-Places, 1995 (1992), 66.

9 Augé, Non-Places, 1995 (1992), 86. Italics in the original. In the same context, Augé also introduces the highway as a prominent non-place (ibid., 79).

10 Gurlitt, Handbuch des Städtebaues, 1920, 240–288.

11 Warnke, Natur nach dem Fall, 1994; Vinken, Die neuen Ränder, 2005.

12 Fehl/Rodríguez-Lores, Die Stadt wird in der Landschaft sein, 1997, 19–54.

Schwarz, seeking to establish the urban landscape as the general model of postwar reconstruction, writes: "The large city has become fluid, it flows out into its landscape, filling it to the brim. […] City and country have come into flux, and out of their murky intermixture the urban landscape crystallizes."[13] The urban cores, too, are accordingly subjected to a process of space planning guided by criteria of order and functionality, which instate the guiding vision of a clearly structured city rich in greenery and open spaces, a hygienic and "traffic-friendly" urban landscape traversed by – ideally: intersection-free – roads and railroads embedded in wide green areas.

That the city is categorized as a space that can be planned, controlled, and subdivided is the trajectorial space's first triumph. The trajectory turns out in this regard to be the agent of a homogeneous "Euclidean" space conceived as preexisting what is in it; seen from the trajectory, everything becomes a destination – or an obstacle. The tabula rasa, the empty and zonable space in which the modern city comes into being and at whose mercy it has been ever since, is the trajectorial space. The sway of this space has changed the heterogeneous spatial structure of the traditional city, which Marc Augé has described as a fabric of interrelations between interpenetrating and overlapping places as well as an "active place."[14] Le Corbusier's urban projects and utopias present an illustrative example that can help us gain a better understanding of this process and the specific qualities of the trajectorial space. For as we will see, the great variety of such projects designed by the man who was probably the single most influential protagonist of functionalist urban planning[15] at once marks a radical end point of the trajectorial space's dominance over the city.

The motif of the trajectory already occupies a central position in Le Corbusier's early urban utopias. He first comes to public notice as an urban planner at the Paris Autumn Salon of 1922, where he presents his project of a "Contemporary City for Three Million Inhabitants" (figs 1, 2).[16]

The *Ville Contemporaine* is considered the first ever functionalist urban development project.[17] For the first time, the urban area is strictly divided into spatially separate zones that also differ in their formal designs – a downtown of skyscrapers is surrounded by a residential city consisting of linear residential structures meandering across wide open spaces and, further out, by factory areas with the associated working-class housing estates. The project's main feature is the generous use of open space in conjunction with a high population density; the architect described his design as a "vertical garden city." Buildings occupy only five percent of the total area; the slender high-rises are set several hundred meters apart.

13 Schwarz, Von der Bebauung, 1949, 205–206.

14 Augé, Non-Places, 1995 (1992), 66.

15 Huse, Le Corbusier in Selbstzeugnissen, 1976, 56–79. See the recent summary discussion in Petrilli, L'urbanistica, 2006.

16 Le Corbusier, The City of To-morrow, 1987 (1925), 176–177.

17 Huse, Le Corbusier in Selbstzeugnissen, 1976, 56, 59–63.

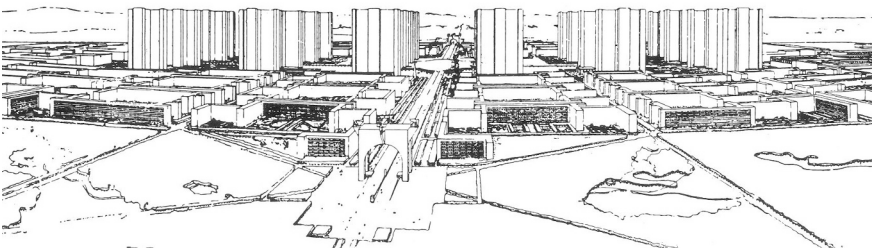


Figure 1: "Contemporary City for Three Million Inhabitants", overview, Le Corbusier 1922

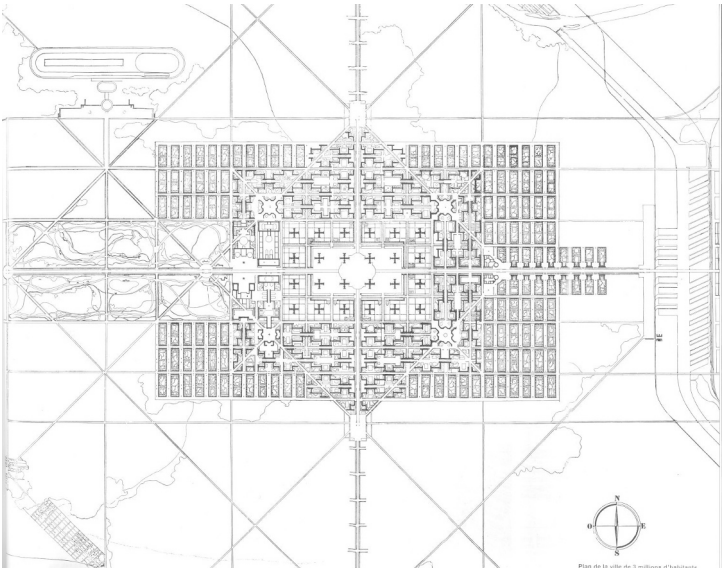


Figure 2: "Contemporary City for Three Million Inhabitants", layout, Le Corbusier 1922

The center of the entire project is given to traffic, with a landing field for air taxis atop a multi-level train station. Numerous highways and roads provide access to the entire metropolitan area, forming a complex fabric of thoroughfares of gradated capacity. The ornamental aspect of this fabric, which patently owes more to a concern for formal aesthetics than to functional considerations, renders it glaringly obvious that the trajectory is the project's guiding principle. The building designs, too, derive from this primacy of the trajectory. From roads and parking levels, elevators, as "vertical mass transit," catapult people to their workplaces and apartments off the hallways of the me-

andering blocks. Despite the inclusion of dedicated pedestrian levels, the enormous dimensions and spaces of the "Contemporary City" are designed for rapid movement, for the car and the driver. A multi-lane highway reserved for individual traffic forms the rigorously geometrical layout's spine. The fact that this highway, moving away from the city center, abruptly narrows down to a much smaller road highlights the representative and symbolic function of the so-called *grande traversée*, whose beginning and end are designated by triumphal arches: the center of the modern city marks the triumph of the automobile. In this regard, the project renders a very literal interpretation of the concept of "Fordism": Le Corbusier reiterates the fundamental disposition of Ford's groundbreaking car factory in Detroit, a gigantic industrial compound whose layout obeys rational considerations, with a central production line linking the various elements.

Despite the highway axis dominating the project, the *Ville Contemporaine* remains committed to the tradition of centralistic urban layouts. Still, the consequences of the city's integration into, and subordination to, the trajectorial space are unmistakable. Ample spaces designed to enable a neat separation of functions as well as a high degree of mobility isolate and distance the individual elements from one another, privileging gazing over doing, driving past over lingering. The density and superimposition of structures of interrelation and spaces of action of the traditional city disintegrates into a space conceived from the perspective of the trajectory and furnished with architectonic sculptures. The rich choreography of visual axes between these elements Le Corbusier presented in various drawings[18] is best seen in the sequences that emerge as one drives past them (fig. 3). The city becomes an aggregation of marginal objects in a trajectorial space to be traversed in rapid movement.

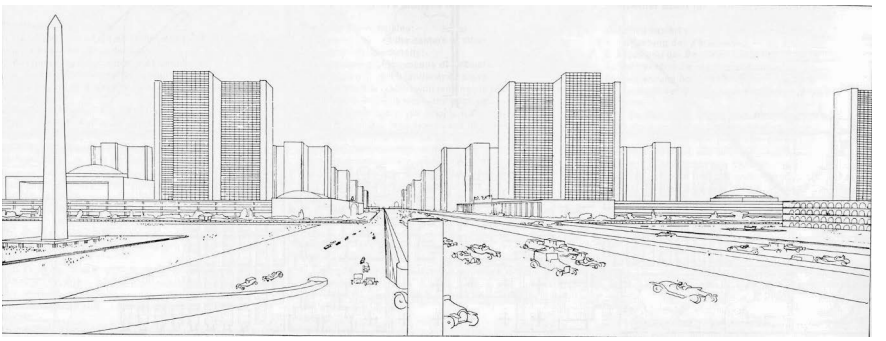


Figure 3: "Contemporary City for Three Million Inhabitants", view from the central highway, Le Corbusier 1922

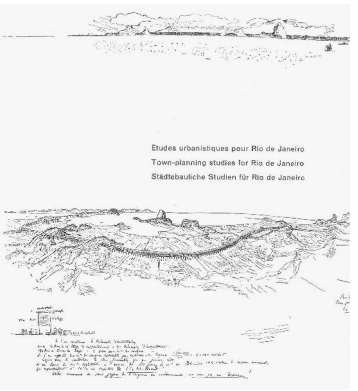
In the 1930s, Le Corbusier elaborated his Contemporary City into the *Ville Radieuse*, the "Radiant City".[19] The spatially separate zones (administrative, residential, industrial, recreational) are now placed in alternation along the central highway. The conveyor belt of traffic has become the sole defining principle giving the urban design its

18 Le Corbusier, Œuvre complète, 1960, 34–39.

19 Le Corbusier, La ville radieuse, 1935.

structure and shape, creating the arbitrarily extensible linear city.[20] This renders the integration of the city into a space conceived as total (and homogeneous) even more obvious. The radiant city itself is trajectory-shaped, perfectly aligned, dynamic, endless. The trajectory is the principle of this space in two ways: as a principle of distancing and remote views; and as the principle of a homogeneous functional space of movement that presupposes additional homogeneous spaces dedicated to specific functions such as habitation, work, etc.

The trajectory remains the leitmotif of Le Corbusier's urban planning well into the postwar era. As early as 1929, he had designed ribbon-shaped megastructures that would snake through the bays of Rio de Janeiro (fig. 4) like the sandworms of Frank Herbert's desert planet. Not much later, he wanted to connect two outlying suburbs of Algiers with similar linear cities (fig. 5).[21]



Figures 4, 5: Urban planning for Rio de Janeiro, "Project Obus" for Algiers, Le Corbusier 1929 and 1931

The central aim of these visions is to achieve a complete synthesis of trajectory and residential unit. The new urban form consists of wide highways atop a gigantic support structure made of reinforced concrete into which apartment units are inserted; in the case of Algiers, Le Corbusier's plans included housing for no less than 180,000 inhabitants. The arterial road is the "roof" of a ribbon-shaped apartment block on stilts; habitation is formally and literally subordinate to the trajectory. In a gesture almost of modesty, the revolutionary structure of this urban utopia is motivated as a technical alteration to the urban structure: "The project provides the city with what it urgently needs: rapid transit and apartments."[22] In fact, it entails massive interventions into the spatial structure that are illuminating for our inquiry into the qualities of the trajectorial space, as they concern its relation to the old city and to the surrounding countryside. Indicatively enough, the first point, the relation between the trajectorial space and the

20 Le Corbusier, La ville radieuse, 1935, 170.

21 Le Corbusier, Precisions on the present State, 2015 (1930), 233–245; and see Boesiger/Girsberger, Le Corbusier, 1999, 324–328.

22 Boesiger/Girsberger, Le Corbusier, 1999, 327.

old city, was only of marginal interest to Le Corbusier. In many sketches, built-up areas are indicated by nothing more than summary hatching. His linear city is, first and foremost, a grand system for automotive traffic that "frees" the old city "of confusion and clutter […] without interfering with the existing state of affairs in any way."[23] For, the conciliatory argument goes, "nothing is easier than to build, with little disturbance, supports of reinforced concrete rising well above the roofs of existing neighborhoods."[24] Rather than "scraping off [and] removing" "that swarming mass that until now has clung to the ground like a rigid crust" – these words are meant to describe a reorganization of the historic center of Paris[25] – the design calls for traffic to traverse the old Rio with its heterogeneous spaces and layered components on stilts. Transcended by the technological constructions of the new machine age, the old city languishes in the shadow of the trajectory.

The distancing and marginalization of the old city we can observe in this instance is positively a precondition for the new kind of urban landscape to which Le Corbusier plans to give shape. This urban landscape, rather than consisting of city and countryside, abruptly confronts both with the trajectorial space and its architectonic implementation. Seen through the eyes of the creator-architect, nature and architecture allow each other to appear in the most flattering light: "The whole site began to speak […] of architecture […]. The city announced itself by the only line that can harmonize with the vehement caprice of the mountains: the horizontal."[26] The freedom of the open road corresponds to the freedom of the distanced gaze: "The steamers that passed, magnificent and moving constructions of modern times, suspended in the space above the city, found a response, an echo, a rejoinder there."[27] At night, in particular, ships entering the harbor would come upon a magnificent spectacle whose effect would surpass that of New York's skyline. This urban utopia of a grand form composed, in sculptural fashion, into the landscape aims both at total functionality and at the aesthetic appeal of distanced spectatorship, uniting two central qualities of non-places: constituted to meet specific purposes, they do not engender spaces of encounter and assembly, instead establishing unambiguous and functionalized relationships between the isolated individual and the space.[28] The highway on stilts moreover permits no more than a passing glance at the existing places with their centers and crossroads. In the privilege it accords to the distant view, too, this "trajectorial-city" belongs to the spaces of transit occupied by travelers.

The *Cité linéaire industrielle* (fig. 6), a project Le Corbusier begins drafting in 1942–43, represents the synthesis and quintessence of his ideas about urban development.[29] In

23 Boesiger/Girsberger, Le Corbusier, 1999, 324.

24 Le Corbusier, Precisions on the present State, 2015 (1930), 242.

25 Le Corbusier, The City of To-morrow, 1987 (1925), 280–281. At the time, Le Corbusier planned to build a "Contemporary City," the *Ville Voisin* (named after a automobile brand), in the center of Paris (ibid., 277–289).

26 Le Corbusier, Precisions on the present State, 2015 (1930), 245.

27 Le Corbusier, Precisions on the present State, 2015 (1930), 245.

28 Augé, Non-Places, 1995 (1992), 96–97.

29 Le Corbusier, L'Urbanisme des Trois Établissements humains, 1959, 97–125. On the genesis of the "industrial linear city" cf. Fehl/Rodríguez-Lores, Die Stadt wird in der Landschaft sein, 1997, 153–158.

this "industrial linear city," which is conceived as the centerpiece of a comprehensive reorganization of space, the trajectory becomes the principle of the global order of space and indeed of civilization as a whole.

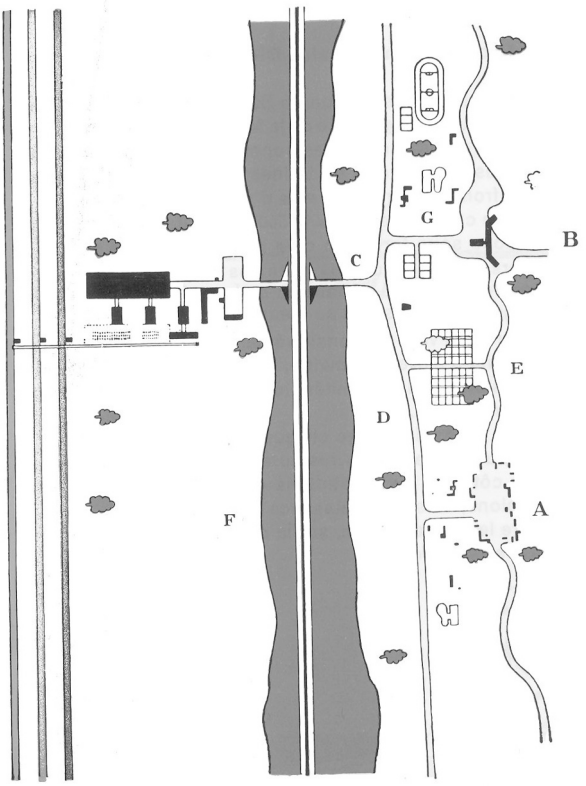


Figure 6: "Industrial Linear City", Le Corbusier/ASCORAL 1942–43

In several sketches, Le Corbusier lays out the vision of a global order of space based on gigantic urban belts that extend across the continents from harbor to harbor. The slightly cryptic annotation reads in translation: "The world has spread across the entire surface of the earth, from one pole to the other and even across the poles themselves, a world made up of storage facilities, gigantic productive forces, and transit and transportation infrastructure."[30] The industrial linear city is a loose aggregation of factory compounds, residential units, and infrastructure along transportation and traffic routes laid out in parallel lines. At its center runs a highway – wide green spaces shield the rest of the city from its noise – reserved for individual traffic (!). At some distance from it, the various routes of freight traffic run in parallel to it: road, railroad, and canal. The factory zones are inserted between these lines. On the other side of the highway are apartments, communal buildings such as athletic and recreation centers, and cultural

30 Quoted in: Boesiger/Girsberger, Le Corbusier, 1999, 336.

and administrative facilities. This urban landscape lacks all traditional urban attributes, or rather: it is conceived as the antithesis to the historic city: loose, permeated by greenery, and dynamic rather than dense, built of stone, and centered. The trajectory as the principle of spatial order creates functionally unambiguous and homogeneous zoned spaces in order to realize the explicit aim of the functionalist urban models. The industrial linear city, too, clearly evinces the qualities of the trajectorial space. The city is reduced to spatially isolated zones, each composed of homogeneous functional units devoted to habitation, work, and play; modern man, ideally, is always efficient: now as a sleeper, now as an eater, now as a worker. The city's resident becomes its user – especially so on the central trajectory, which remains Le Corbusier's privileged perspective of its representation. Here, as in all non-places, man is free from his "usual determinants" and "no more than what he does or experiences in the role of [...] driver."[31]

Le Corbusier's urbanistic proposals are remarkably consistent in the way they take the concept of the functionalist city to its logical extreme – also as regards its spatial dispositions. In the linear city, the modern city is entirely conceived around the central trajectory – and with the trajectory a non-place has intruded into the center of the urban fabric and broken it apart into isolated zones, modes of access, and views. Linear cities have played a supporting role at best in the history of urban development.[32] Yet beyond such instances in which the trajectory formally shapes the modern city, most evidently so in the linear urban forms, we can note structural changes – or rather, spatial dislocations – that result from the rise of the trajectorial space as the new paradigm of urban development. A direct path leads from the trajectory and the trajectorial space to the crisis of the modern city and its "inhospitability" mentioned above. In the historical perspective, however, responsibility for this development is borne not by utopian visions of the linear city but rather by the organic urban models that prevailed in the postwar era, promising to correct the construction flaws of the functionalist city[33] by replacing a mechanical and "empty" order with one that would be "animated," meaningful, and lively. In his influential textbook *Organische Stadtbaukunst* (The Art of Organic Urban Development, published 1948),[34] Hans Bernhard Reichow dedicates himself to a renewal of the city as a harmonious entity "in accord with the laws of life", and to the "development of a cohesive, organically structured, ordered, and integrated metropolitan body possessing natural and meaningful unity".[35] The new urban landscape is to be based on a cellular and hierarchically gradated structure, from the single-family residential unit to the apartment block, from the neighborhood to the urban district. Green spaces or woodlands and agricultural areas separate the individual urban cells or neighborhoods from one another. Metaphors taken from the (human) organism undergird this structure of order. Cells and organs, arteries and nerve cords are to be placed in organic – which is also to say, meaningful and purposive – arrangement. This image,

31 Augé, Non-Places, 1995 (1992), 103.

32 Fehl/Rodríguez-Lores, Die Stadt wird in der Landschaft sein, 1997, and Kainrath, Die Bandstadt, 1997.

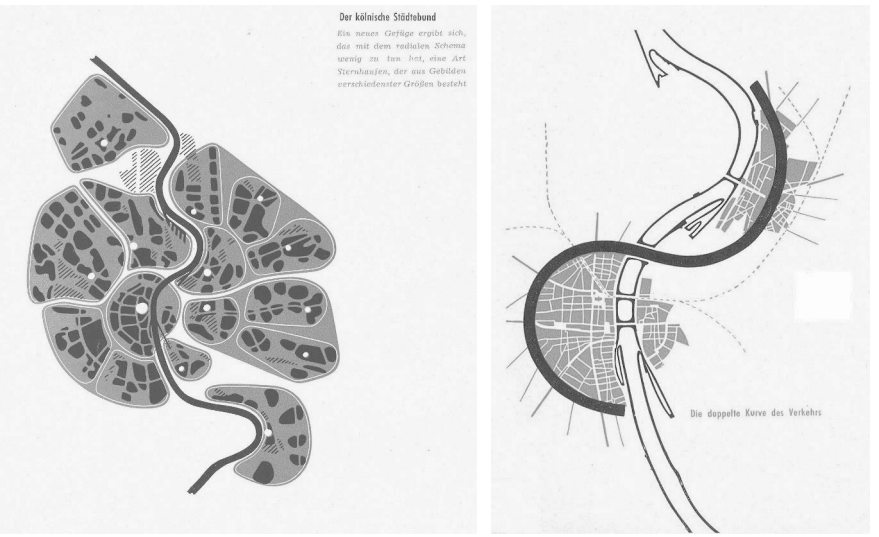
33 Cf. the summary discussion in Düwel/Gutschow, Städtebau in Deutschland, 2001, 165–174.

34 Reichow, Organische Stadtbaukunst, 2005 (1948).

35 Reichow, Organische Stadtbaukunst, 2005 (1948), 59.

it would seem, assigns places as well as trajectories their respective locations within a shared whole, the "urban body." And yet, as I will show in the following, the city under the aegis of the organic has been no less subject to the dominance of the trajectorial space and its non-places.

The champions of organic urban planning took far from negative views of technology, traffic, and mobility. Just like Le Corbusier, they claimed to have the right answers to the new demands the city faced; they, too, were heralds of modern progress. As early as 1928, Rudolf Schwarz, a theorist of the modern city whose importance has not yet been fully recognized, had devoted a book to the "path-breaking power of technology";[36] in his subsequent writings, he had repeatedly placed the demands of the age of mechanization, the "intrusion of technology into the cities,"[37] at the center of his reflections on urban development.[38] When Schwarz was appointed head of general planning for the rebuilding of Cologne in 1946, he drafted an urban landscape that would subject the entire Cologne Bight to a new spatial structure. *Das neue Köln* (The New Cologne),[39] a programmatic book published in connection with these plans, illustrates the project in striking graphic representations that show the Cologne Bight as a network of more or less autonomous urban units (fig. 7).



Figures 7, 8: "The Cologne Federation of Cities" – "Double City Cologne and Mülheim", Rudolf Schwarz 1950

This "federation of cities" is shown in sketches deliberately designed to recall the images of cells and nuclei in biology textbooks. Upon closer examination, however, the heritage of the functional city is tangible in the plans for Cologne not only in the rational

36 Schwarz, Wegweisung der Technik, 1979 (1928).

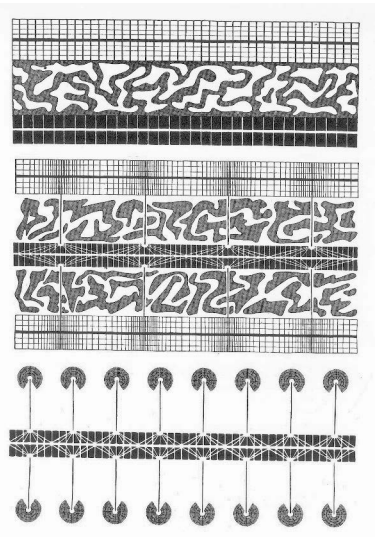
37 Schwarz, Das neue Köln, 1950, 11.

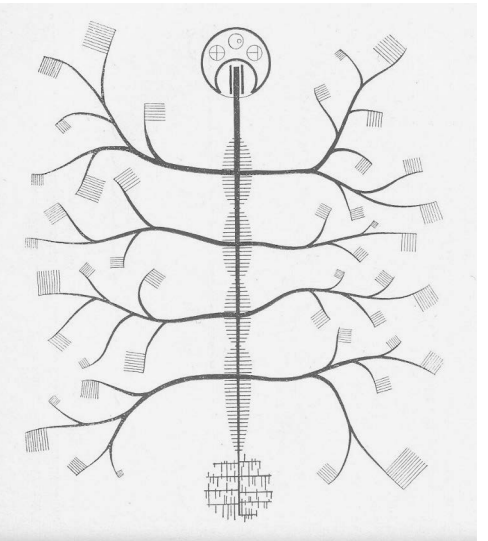
38 See the recent detailed discussion in Pehnt/Strohl, Rudolf Schwarz, 1997.

39 Schwarz, Das neue Köln, 1950.

organization of the region as a whole but also, quite concretely, in the figure of the "double city" (fig. 8): the urban nucleus of Cologne, as the "acropolis" (*Hochstadt*) and "city of education and community," is complemented by Mülheim as the "city of labor," a structure that unmistakably recalls the linear-city conceptions. The two centers are organized along two conveyor belts, the "double curve" of traffic, formed by the river Rhine and a planned new highway. Mülheim itself functions as a linear city along a central trajectory, quite as proposed by Le Corbusier for industrial cities; the "acropolis" (*Hochstadt)* of Cologne, by contrast, is "embraced and delimited" by the highway – a configuration we will need to discuss in greater detail.

In fact, Rudolf Schwarz had closely studied the industrial linear city as early as 1941, when he worked on the plans for Thionville (Diedenhofen), on which his proposals for Cologne would later draw.[40] The drafts for the organically structured "urban landscape of Diedenhofen"[41] were commissioned by the National Socialists, who sought to redevelop war-ravaged Lorraine, which had come under German occupation, radically Germanizing and modernizing it in the process. In this context, Schwarz transformed the guiding model of an organic structure into a concrete structural schema that profoundly influenced the German debates of the postwar era, not least importantly through his widely read 1949 programmatic essay *Von der Bebauung der Erde* (On the development of the earth),[42] which explicitly describes the organic urban landscape as an elaboration of the linear city (fig. 9).





Figures 9, 10: "Development Scheme from the Linear City to the Urban Landscape" –"Industrial Ribbon with Residential Developments and 'Hochstadt'", Rudolf Schwarz 1949

40 Pehnt/Strohl, Rudolf Schwarz, 1997, 100–112.

41 Schwarz, Stadtlandschaft Diedenhofen, 1943.

42 Schwarz, Von der Bebauung der Erde, 1949.

A "three-ribbon city" (with an industrial, a green, and a residential ribbon), mirrored across one axis, becomes a five-ribbon city with a central industrial ribbon, and finally an industrial ribbon with residential developments forming lateral appendages. Another illustration (fig. 10), which depicts a schematic view of the entire urban landscape as it was to be realized in Cologne as well, confirms the extent to which the linear element of the central trajectory has penetrated the organic plans: here, too, the city's spine and its structurally dominant element is the "maelstrom of the industrial zone." This model city, however, is enriched by the addition of a new element. Whereas Le Corbusier puts issues of transportation front and center, which leads to a design that seeks to insert the zoned city as smoothly as possible into the trajectorial space, the organic model has two poles. The residential cells are arranged in relation to the transportation belt without adopting its spatial structure, forming their own centers of gravity. Schwarz compares this pattern to the spatial organization of a cathedral: the length of the central nave is flanked by chapels that are accessible and yet intimate and self-enclosed spaces, just as the autonomous spatial units of a "pearl necklace" of residential cells are arrayed along the "maelstrom of the industrial zone."[43]

The trajectorial space of the industrial linear city has thus been reinterpreted into a polar order of the sort that is characteristic for the entire concept of the urban landscape. City and countryside, too, are presented as interrelated categories: the city, Schwarz writes, is "another countryside. The landscape exists doubly, once spread out outside as countryside, and then comprised in a narrow space, transformed into head and countenance, as city."[44] The city itself is accordingly a "double entity." It is a home, homelike, associated with domesticity and the female; but at once also "disclosed toward the open and wedded to the man."[45] This polar order is also, and primarily, a spatial order. On the one hand, the city as a home is "pervaded by the power of places" that can be assigned to the "forever unvarying processes of human lives" and are charged with "the unceasing repetitions of the quotidian." "That means much for planning. In order for residential developments to be able to become a home, their dimensions must remain within the compass life can pervade." Every narrow domain "must contain everything that belongs to the generation of community life."[46] The anthropological place, it would seem, has been rehabilitated in this theory as one "pole" of considerations in urban development. Complementing his theory of the place, Schwarz elaborates a theory of the trajectorial space. The figure that to his mind marks the polar opposite of the home is traffic, as the expression of openness par excellence. This pole, he argues, did not fully develop until traffic was mechanized. The man of old, the pedestrian, now shared the city with man as the "commander of technology, with great speeds and spaces at his disposal."[47] The human being of the modern era is accordingly described as a double creature, at once "pre-technological" and "meta-

43 The image continues with an equation between the altar, the inner sanctum, and the "acropolis" (*Hochstadt*) or "central sun", Schwarz, Von der Bebauung, 1949, 106.

44 Schwarz, Gegenstand des Städtebaus, 1997 (1948), 218.

45 Schwarz, Von der Bebauung, 1949, 196.

46 Schwarz, Von der Bebauung, 1949, chapter "Die Stadt", 193–212.

47 Schwarz, Das neue Köln, 1950, 11–12.

technological"; as a pedestrian and "conductor and director of technology."[48] This double being, Schwarz argues in his essay on "Das neue Köln," necessarily requires a double structure of his habitat: "the ample and spacious city and the other one for the quiet and precious things and the homes of human sentiment."[49] The new city of Schwarz, we might translate, merges place and trajectory.

How is this simultaneity conceived in spatial terms? How can place and trajectory be integrated in such a fashion that neither pole takes on the spatial qualities of the other, with the attendant adverse effects? For the "double entity" of the new city to be realized in full, Schwarz is convinced, both components need to "mature into their fully developed figure."[50] This process of the clarification of home and technology, of place and trajectory described here as one of maturation also implies a radical reconstruction and reorganization of the city. And once again, the guiding figure of modernization is the trajectorial space and the structure it imposes: "The technical [component], in particular, must be developed to its full clarity and size, as unconstrained as possible by petty considerations. The large conveyor belts of traffic must flow through the lands in free movement and be equipped with everything required for a smooth discharge of traffic," Schwarz writes – Le Corbusier would have concurred without qualification. These wide-open spaces of knowledge must then "be complemented by a meta-technological component that, undisturbed by technology and its traffic, is the province of unencumbered man."[51] This privilege accorded to one pole, that of the trajectorial space, provides, in the practice of urban planning, the argument that it is necessary to reorganize the city in order to make it traffic-friendly. Still, from now on – and no earlier theorist has put it quite so clearly – the urban planner's task is double: not only must he create wide and fluid spaces; he must also "restitute" to the pedestrian city its proper dimensions, since traffic, Schwarz writes, had brought about "the general dissolution of the historic town center."[52] In Le Corbusier's model, the city was an uncompromising trajectorial space; in the organic model, it becomes a space traversed by polar opposites, "the dynamic [space] of the belts of traffic and the static one of the pedestrian". "Belt and domain," Schwarz writes in looking back on his work on the plans for Cologne, "needed to be woven into each other."[53]

The Cologne plans offer insight into the details of how the modern dichotomy of place and trajectorial space was to be translated into a new spatial order – and analyzing them can help us detect the flaws in the procedures applied to attain this goal. As we saw, the "maelstrom of technology" remained the principle on which the urban landscape's order was based; in the Cologne Bight, the highway from Cologne to Mülheim would be one such trajectory. The trajectory has the double function of providing

48 Schwarz, Das neue Köln, 1950, 11–12.
49 Schwarz, Das neue Köln, 1950, 11–12.
50 Schwarz, Das neue Köln, 1950, 12.
51 Schwarz, Das neue Köln, 1950, 12.
52 Schwarz, Das neue Köln, 1950, 11.
53 Schwarz, Der Aufbau zerstörter Städte, 1997 (1955), 220.

access to, and imposing order upon, space: "Rapid traffic fringes the place, branching off from its fringe toward its center" (fig. 11).[54]

Figure 11: "General Concept of the Suburb", Rudolf Schwarz 1950

This second task of the trajectory, here designated by the term "fringing," which was already recognizable in the sketch "The double curve of traffic" (fig. 8), merits closer examination. Unlike Mülheim, an industrial town fed, and bisected, by the trajectory as though by a conveyor belt, the urban nucleus of Cologne is fringed by the trajectory, which turns it into an island of sorts. This constellation returns in the structure imposed on the urban cores. The "reorganization of the inner city" looks peaceful and hardly spectacular in the plans: it shows the newly organized, largely independent residential neighborhoods, each comprehended by higher-order roads. These multi-lane arterial roads are laid out wide enough to accommodate not only car traffic, but also the tramway on its own track bed separate from the street. The "general concept" summarizes this method as follows: "Calm and internally complete neighborhoods need to be formed and separated from one another, and the suitable means to this end is the thoroughfare."[55] "Internally complete" – that refers to the desired autonomy of these units, which usually comprise several parishes and generally coincide with a school district. Traffic infrastructure, as Schwarz puts it concisely in the same context, has "today almost taken on the function formerly fulfilled by city walls; it delimits and circumscribes

54 Schwarz, Das neue Köln, 1950, 29.

55 Schwarz, Das neue Köln, 1950, 43.

the quarter. The planner will fringe the latter with such roads and distance it from adjacent quarters."[56] The trajectory is here not just the central element of spatial planning; it is also meant to supply the definition and protection classically afforded by the city wall: the trajectorial space and its non-places are suddenly charged with circumscribing and assembling.

The mismatched comparison between the highway and the city wall reveals where the blind spot of the project of organic reconciliation lies. For there is no spatial overlap between the wall and the trajectory: whereas the wall separates an (open) outside from a (protected, enclosed) inside, expansiveness from narrowness, city from countryside, the trajectorial space cannot serve as a boundary in this sense. As an agent of the infinite, open, and expanding vector space, it occupies adjacent spaces in order to subject them to its order. Schwarz was in fact perfectly aware that the two spaces to be "woven into each other" were incommensurable opposites: "The fact remains that modern traffic requires urban planning on a different spatial and temporal scale than the traffic of the old cities, largely defined by pedestrians. Modern traffic requires wide, fluid belts to be rapidly traversed. The driver condenses the space he traverses, whereas the pedestrian gradually gains access to it."[57] Yet Schwarz's use of the term "condensed" to describe the trajectorial space quite plainly shows the inadequacy of the instruments he proposes. The two spaces and their different scales cannot indeed be interwoven into peaceful coexistence in a greater space of the urban totality. The condensed space of the trajectory evinces a characteristic urge to unrestrained expansion. It is unsuitable as the boundary of a small-scale "interior" because as a consequence, the emptiness and distancing of the trajectorial space invade the protective urban spaces of guarding and assembling. The plans for Cologne are clear evidence in this regard: in Schwarz's conception, the expressways that enclose the neighborhoods are to be as "frontage-free" as possible. Rather than being lined by businesses, roads should preferably widen into square-like exterior spaces used as parking lots interspersed with tall and large administrative buildings that, erected at large distances, "are more commensurate with the scale of the belt."[58] The trajectory exports its scale into the spaces adjacent to it, transforming them into space congruous to itself. Distancing and emptiness, the qualities of the trajectorial space, distinctly come to the fore. The new city Schwarz imagines already faintly suggests the specific qualities of the car city Venturi and Scott Brown taught us to recognize in their exemplary study of Las Vegas (fig. 12).[59] Seen from the highway, the city in this model shrivels into an agglomeration of isolated buildings on the edges of wide parking areas, while omnipresent advertising billboards and information signage provide the required rapid orientation.

56 Schwarz, Das neue Köln, 1950, 29.

57 Schwarz, Das neue Köln, 1950, 11–12.

58 Schwarz, Der Aufbau zerstörter Städte, 1997 (1955), 221.

59 Venturi/Brown/Izenour, Learning from Las Vegas, 1972.

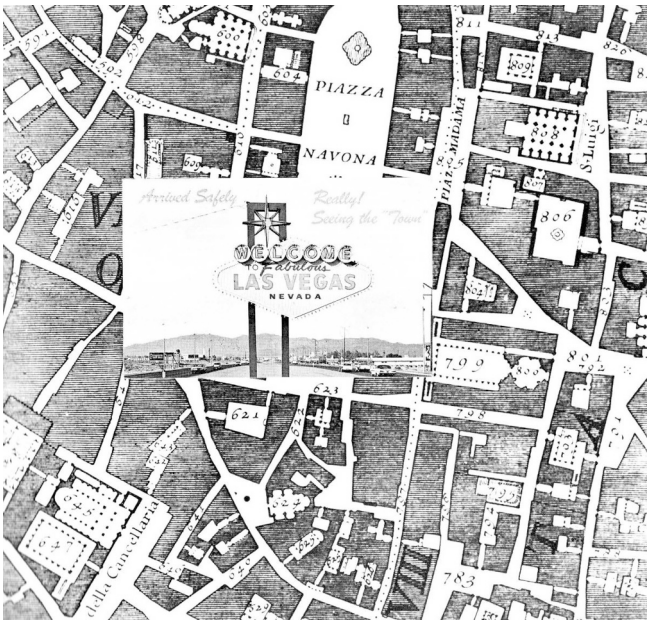


Figure 12: Traditional city and car city. Rome and Las Vegas, Robert Venturi/Denise Scott Brown 1972

The urban landscape of Cologne, with its desired "interweaving of belt and domain," was not realized except in isolated locations; but it served as a guiding model in the rebuilding of many war-ravaged cities. The reorganization of Essen into a "shopping city with direct Autobahn access," for instance, begun under mayor Gustav Heinemann, who would later be Federal President of West Germany, clearly evinces comparable structures. The historic urban core is "fringed" by a wide ring road directly connected to the Ruhrschnellweg highway. Constricted and isolated rather than "delimited and circumscribed," Essen's center has been rebuilt as a commercial and business district.[60] As envisioned by Le Corbusier and Rudolf Schwarz, parking garages function as hinges between the trajectorial space and the "pedestrian area" where the driver switches "roles," becoming a consumer. The trajectorial space thus abuts a functional zone that is no less spatially homogeneous; the city under the sway of the trajectory is pervaded by nonplaces: it is not a place of encounter and assembly.[61]

Le Corbusier probably saw the extent of the conflict between the traditional city and the new trajectorial spaces more clearly than did the champions of the organic urban landscape. In his vision, the old cities have in the machine age sunken into a sort of enchanted oblivion: "The beauty and splendor of the concentric city derived from the royal roads; but where the railroad, appearing on the scene, ignored it and passed it

60 Loth, Essens Wiederaufbau, 2005, 131–133.

61 Löw/Vinken, Die Dichte der Entleerung, 2007.

by in a wide arc, the city fell asleep."[62] Yet even if the future the architect confidently envisions belongs to the "villes vertes," the "vertical garden cities" and "unités d'habitation" embedded in green areas, he does not foresee a complete disappearance of the traditional "radiocentric cities." In accordance with their origins, he sees them located, as "cities of exchange," at the intersections of the major traffic arteries.[63] And although sweeping "surgical" interventions ought to prepare these sleeping beauties for the future,[64] Le Corbusier fears a collision between the linear city and the traditional city: "Attentive measures will be able to prevent the industrial city from penetrating and altogether dissolving in the concentric city: a wide protective greenbelt will need to be laid out around the old city, a belt of fields, meadows, and forests. This peaceful space enables people from both spheres to meet, allows for a rapprochement and harmonious exchange between them: one city brings to this meeting the enormous tension of machine technology; the other, the pertinacity of things that are, as it were, forever unchanging, having been contemplated, experienced, and tested for a long time."[65] The city, as a place of assembly, now appears as nothing more than a monument to forever unchanging things. And protecting the trajectorial space, with its functional efficiency and beauty, from the relics of the old world requires a wide *cordon sanitaire*. Indicatively enough, the city of the past is to be embedded in peaceful greenery, a schema we can trace back all the way to the romantic ruin in the park; Le Corbusier's plans for the new Paris had envisioned a similar setting in which the national monuments would be "salvaged."[66] Modern life, however, has moved into the dynamic spaces of transit. In Le Corbusier's city, as Hugo Häring wrote, man is "a mere visitor, merely passing through."[67]

62 Le Corbusier, L'Urbanisme des Trois Établissements humains, 1959, 102.

63 Le Corbusier, Concerning Town Planning, 1948 (1946). The new spatial order, composed of industrial linear cities, radiocentric cities, and agricultural production units, is laid out in detail in Le Corbusier, Les trois établissements humains, 1946.

64 Surgery rather than the paltry remedies of traditional medicine: that was already the architect's motto in his first comprehensive work on urban planning, see Le Corbusier, The City of To-morrow, 1987 (1925), 258–273. For a more detailed discussion of the proposed modernization measurements to be implemented during rebuilding, see also Le Corbusier, Concerning Town Planning, 1948 (1946).

65 Le Corbusier, L'Urbanisme des Trois Établissements humains, 1959, 102.

66 On the plan to 'salvage' the national heritage in the *Ville Voisin*, see Le Corbusier, The City of Tomorrow, 1987 (1925), 287–289. Cf the essay on *The Spaces of the Monument* in this volume (Chapter 4).

67 Hugo Häring, Zwei Städte, in: Die Form, 2/1926, 172–175, quoted in: Düwel/Gutschow, Städtebau in Deutschland, 2001, 71.