

Commentary

## The Modern Project: A Research Hypothesis

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### Abstract

The project of the industrial modern city comprises many heterogeneous paths and stories, in particular those regarding the CIAM (*Congrès Internationaux d'Architecture Moderne*) Functional City. They all come together in a discourse that links the architectural form to positive urban and social transformations. Such a discourse was interpreted from two different perspectives: The first hypothesized the need for political change starting from the collectivization of land ownership as stressed in the declaration of CIAM at La Sarraz in 1928, whereas the second theorised the capacity of new architecture to improve living conditions irrespective of the political context as supported by Le Corbusier. Starting from these premises, the present commentary proposes a fresh perspective on the functional city project, where the research on the minimization of effort contributed to a different definition of work from the Marxist one and in the modern sense. Therefore, the design and the space of the *Existenzminimum* blatantly contributes to the construction of a new routine, inspired by minimum effort, with the creation of a new effort–relaxation–rest rhythm and repetition.

### Keywords

economic efficiency; *Existenzminimum*; minimum working effort; *Siedlungen*; *Trabantenprinzip*; *Ville Contemporaine*; *Ville Radieuse*

### Issue

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### 1. Experiments: Three Moves

In the early decades of the 20th century, in the Netherlands, Vienna and Frankfurt, districts and parts of the city were created that would take on an exemplary role in the European debate. According to Carlo Aymonino (1965), the urgency of the solution to the housing problem, established among other things by studies on poverty and sanitation, shifted the topic of urban design from the city as a whole to some of its parts and to specific housing themes. The city expanded through the addition of discreet elements, becoming a place of discontinuity, separation, heterogeneity and estrangement (Foucault, 1984; Secchi, 2000, 2005).

In a fitting reading of the progressive opening up of the block in the 20th century Panerai, Castex, Depaule and Samuels (2004) distinguished three main moves. The

first move—explored in south Amsterdam by Hendrik Petrus Berlage between 1901–1905 (see Figure 1) and 1914–1917, and in Vienna by Karl Ehn in the Kark Marx Hof 1100 metres long, 1382 apartments—concerns the expansion of the block and the search for repeatable methods of collective living. The Amsterdam experience is one of the references used by CIAM as an example of the administration and architects working together to improve living conditions.

The second move refers to the opening up of the block. Between 1925 and 1926 Ernst May developed a regulatory plan framework for Frankfurt based on *Trabantenprinzip*, development for satellite towns influenced by Unwin and Karl Scheffler's (1913) text, *Die Architektur der Groszstadt*. May had already used it in a competition for the Wroclaw plan of 1921, accompanied by the motto “satellite”.



**Figure 1.** H. P. Berlage, aerial view of the project for south Amsterdam, 1915. Source: Gemeente Amsterdam Stadsarchief (n.d.).

The principle of “satellite towns” was explored (under the influence of Unwin) in the districts of Frankfurt, where *Siedlungen* are proposed as alternative facts to the nineteenth-century city. We can make the hypothesis that the collection of satellite towns should have been connected by a network of roads and green corridors similar to the one that had already appeared, a few years earlier, in Eliel Saarinen’s constructs for Greater Helsinki. May’s framework can still be recognized in an image of present-day Frankfurt: among the “satellites” that Scheffler accepted “as the only positive and non-contradictory solution to the questions that the city asks itself” (Grassi, 1975, p. 18), large areas of free space create new continuities in the city. The relationship between satellites and open space is not only functional and ecological: it defines new spatial and architectural characteristics. Giorgio Grassi gave a shrewd interpretation of them that links designs such as that of the Nidda valley, Niddatal (see Figure 2), to a reflection on the role of open space in the construction of a city’s architecture. Again, linking *Trabantenprinzip* to an idea of *embellissement*, rather than modern functionalist thinking, Grassi on the one hand lost sight of an important relationship, and on the other established and clearly con-

firmed the architectural unity between built complexes and open space:

From an architectural perspective, in the classical city, the main function of these green areas related to the buildings, villas or palaces they belonged to, the monuments to which they were related, was to be an inseparable part of their architecture. (Grassi, 1975, p. 29)

For this reason, starting with the *Siedlungen* project along the river, Grassi reconstructed the fragments of a genealogy that links the building of neighbourhoods along a stretch of open space for the purpose of interrupting the continuity of the urban fabric, to the example of the large villas of the past or the complex of gardens of the Belvedere and Schwarzenberg palaces in Vienna (Grassi, 1975, pp. 29–30).

Frankfurt’s *Siedlungen* still maintain a relationship with the road even if it is not traditional, for example in the Westhausen where the principle of *Zeilenbau* used for military camps offers the simplicity and repeatability required by industrial production methods. The “Frankfurt kitchen”, social services, roof gardens and the



**Figure 2.** Aerial view of the Nidda valley with the Siedlung Römerstadt in foreground and the Siedlung Praunheim in background. Source: Das neue Frankfurt (1930).

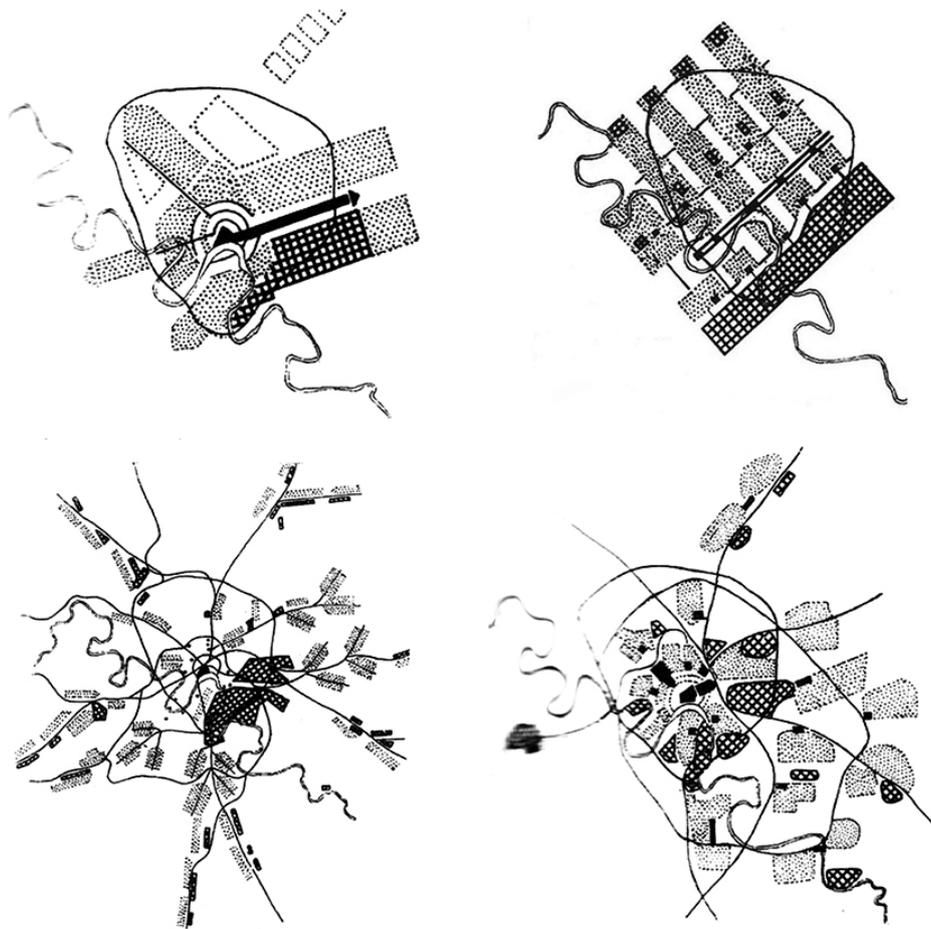
parks designed by Leberecht Migge: the intention was to demonstrate the use of the assembly chain for “social-democratic” purposes. The choice to build almost exclusively low, single-family row houses with gardens, the seriality of many installed systems, rigorously anchored to the solar thermal axis and the construction of sequences, divided into public space and private space in which the role of open space turns out to be fundamental, define their main characteristics. Before the imperious choice of “high-rise buildings” established at the 3rd CIAM “Rational Buildings’ Methods”, specifically in the session “Low-, Medium-, High-Rise Buildings”, held in 1930 in Brussels, Frankfurt’s *Siedlungen* represented a sophisticated reflection on the different gradations of space which went from private and individual to public and collective.

The third move stemmed from the idea of a new type of space, definitively and radically different from the previous city: the *Ville Radieuse* by Le Corbusier which was proposed as “modern” and “revolutionary”. In 1930, a competition was announced for a decentralised socialist Garden City for 100,000 people on a site of 15,000 hectares situated 37 kilometres from Moscow,

understood as a city of *loisir* for workers who would have rested on their weekly day off (a vast proletarian model clinic). As is known, strong opposition arose between urbanists (supporters of collective settlements of limited size and shared services) and disurbanists (who propose linear settlements scattered along the transport lines of individual isolated homes; see Figure 3). After the competition, Le Corbusier was asked for his opinion. He lashed out against disurbanists claiming that density is the only guarantee of an economic, social and cultural life (*élites* inhabit the big city): Starting with his design for the *Ville Contemporaine* from 1922, Le Corbusier proposed a high-density core and living spaces in green areas. The Russians, interested in his criticisms, presented him with a long questionnaire on the future of Moscow. His *Réponse à Moscou*, from 8 June 1930, comprised of 66 pages and 21 drawings, was the first formulation of what would become the *Ville Radieuse* (the Radiant City).

## 2. Space and Society: Two Approaches

Speaking about the modern city, the city that formed starting from the Renaissance, but more specifically the



**Figure 3.** A selection of entries for the Moscow Green City competition. From left to right: brigade of Kratuk (urbanists), WOPRA brigade (urbanists), Hannes Meyer (disurbanists) and Ernst May (disurbanists). Source: Cohen, de Michelis and Tafuri (1930, pp. 143–145).

industrial modern city and, even more specifically, the city of the Modern Movement, is not easy. There are many heterogeneous paths and stories regarding it and concerning the Functional City in particular; they all come together to form a “discourse” according to the Foucault conception (Foucault, 1971; Mumford, 2000) that links the architectural form to positive urban and social transformation.

The discourse established a relationship between the form of architecture and the form of society which the Modern Movement, heir of the nineteenth-century reformist tradition and vanguard of the reflection on welfare developed between the two wars, and above all after the Second World War, interpreted taking two different approaches. The first, which hypothesized the need for political change starting from the collectivization of land ownership, was supported, for example, by the ABC group, formed in 1924 in Basel, and by Mart Stam. Architecture can change the world, as long as the world changes; architecture gives shape to change that has occurred, it is a form of its representation. Kenneth Frampton, in the preface to Eric Mumford’s book *The CIAM Discourse on Urbanism, 1928–1960* (Frampton,

2000), recalls the declaration of CIAM at La Sarraz in 1928 which remarked on both the link between architecture and the general economic system and the need for a collective land use policy:

The chaotic division of land, resulting from sale, speculations, inheritances, must be abolished by a collective and methodical land policy. This redistribution of land, the indispensable preliminary basis for any town planning, must include the just division between the owners and the community of the unearned increment resulting from works of joint interest. (Conrads, 1970, p. 111)

The second approach, which theorises the capacity of new architecture to improve living conditions irrespective of the political context, was obviously supported by Le Corbusier. Unlike the extreme left wing of the CIAM, throughout the 1920s Le Corbusier sought to apply the lesson of Taylor and Ford to the city and to architecture. Like Ford, Le Corbusier claimed that, since the code of mass production was neutral, it should have been possible to apply it in different regimes and types

of government. The physical design, more than political actions, would have brought a real improvement to living conditions in an industrial city: “Architecture or revolution”, wrote Le Corbusier (1923/1946) in *Vers Une Architecture*. The research on *Existenzminimum*, presented at the second CIAM held in Frankfurt in 1929, concerned the search for a biological and not economic minimum and the development of new ways of living together, the hypotheses of which compared even radical ideas of shared spaces.

Was it an overestimation of the role of architecture and its design in society; a loss of sense of proportions, or an attitude of profound cynicism?

### 3. A Research Hypothesis

The hypothesis I put forward is that it was something different, and that Le Corbusier’s attitude, like that of others committed to the same research programme, was rather guided by in-depth research on the minimization of effort in an attempt to contribute to a different definition of work from the Marxist one and in the modern sense, as the conquest of a new freedom: Being modern meant conquering a new form of freedom, being free, not so much from work, but from the effort of work. From the etymological point of view, “labour” and “work” contain two traditional characteristics of work: on the one hand occupation which brings suffering and fatigue (in French as well *labeur* is “charge” and *travail* derives from the Latin *tripalium*, an instrument of torture with three stakes); and on the other creation, implementation, not necessarily in opposition to leisure time, *loisir*.

Conquering a new form of freedom from the effort of work was a research topic, and not a generic positive intention, that gave rise to much of the conviction that architecture is capable of improving the world. In other words, social and political reformism through architecture acts at the level of great detail in which the different bodies enter into relationships and collide; through resistance from and to a specific type of space, the bodies are educated in the modern sense. On the other hand, the La Sarraz declaration also states: “The idea of ‘economic efficiency’ does not imply production furnishing maximum commercial profit, but production demanding a minimum working effort” (Conrads, 1970, p. 109). The reference to Taylorism is clear, but perhaps a broader interpretation of the terms “economic efficiency” or “minimum working effort” is necessary, capable of revealing the freedom that derives from research on the minimisation of effort and the consequences for spatial relationships between humans and objects.

In 1947, Rudolf Laban dedicated a text to the notion of effort. Laban breaks effort down into four components: space (direct/indirect), weight (strong/light), time (sudden/sustained), flow (bound/free). In *Modern Educational Dance*, which appeared in 1948 but accounts for the research carried out before the Great War (Laban’s dance notation was published in 1928), he com-

poses research on the new forms of dance (modern or free) with the application of these studies on movement to industry:

Starting with this wide range of physical efforts, Laban revisited his notions of rhythm and dynamics in expressive dance to adapt them to an economic use of rhythm, aiming to obtain the best possible performance....Unlike experts in the study of time and movement, Laban refused to use a technique based on the stopwatch to accelerate workers’ movements. (Laban, 1948, pp. 145–146)

The efficiency of the effort is not, for Laban nor for the CIAM, the product of faster movements, rather it consists of an improved and more efficient relationship between the movements, in the equilibrium between effort, relaxation and rest which brings novelty and new awareness to the actions carried out in everyday life.

The Frankfurt kitchen was designed by Margarete Schütte-Lihotzky in 1927 and was inspired by train kitchens, Laban’s notation was published in 1928 and a photo of Laban’s free dances in Ascona dates to 1914 (see Figure 4). Research by Margarete Schütte-Lihotzky continued and backed up previous research in the US by the Beecher sisters, in particular Catherine, in the second half of the 1800s, which led to the elimination of the central table, the introduction of the continuous worktop and ultimately to the reduction of a space still designed for hired help; by Christine Frederick, who taught domestic science and was translated and published in 1924 by Bruno Taut, or Lilian Gilbreth, engineer, who in the 1920s, initially with her husband, used diagrams and plastic to study in Taylorist terms the reorganisation of movement in the kitchen space. Paulette Bernège, founder and president of the *Ligue d’Organisation Menagère* in France, was invited to the CIAM of Frankfurt in 1929 dedicated to *Existenzminimum* (Clarisse, 2004; Hayden, 1981; Eleb & Debarre, 1995). The reduction and simplification of a housewife’s movements in the kitchen, like the simplification and reduction of the pathways inside housing in Alexander Klein’s famous plans, translate in the city into a simplification and reduction of the urban spatial complexity of the past through the separation of flows, the elimination of obstacles and possible conflicts, and the transparency of the space. The minimization of routes, in diagrams by disurbanists, upsets the organisation of the living space (Baburov, Djumenton, & Gutnov, 1968, p. 135).

Beyond the minimization of effort, the effort-relaxation-rest equilibrium is guaranteed by the introduction of the *loisir* space within the city: in profoundly different ways from the nineteenth-century and early twentieth-century city in which the role of the public park was to counterbalance factories and pollution, the large green carpet equipped for sport, games, treatment and relaxation of the body and spirit in the modern city emphasises, in its continuity, the complementarity, in the Functional City, between effort and relaxation.



**Figure 4.** Rudolf Laban and the performance of free dances at the Monte Verità in Ascona (Switzerland), 1914. Source: Johann Adam Meisenbach (1914).

The city of the Modern Movement blatantly contributes to the construction of a new routine, inspired by minimum effort, the creation of a new effort–relaxation–rest rhythm and repetition (Eugenides, 2002; Sennet, 1998): “Floating somewhere between socialism and social welfare”, as Aldo van Eyck (1981, p. 17) said of the CIAM.

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#### Conflict of Interests

The author declares no conflict of interests.

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