

Aesthetics and Ideology in the Construction of the City: The Transformation towards an Open Structure in Modernist Dutch Housing

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The city! What concept could possibly be as important as this one? It encapsulates the results, and to some extent the ends and the means, of human social life. the events of humanity's collective aspirations. The history of urban design is the very history of humanity; the development of the city is the development of human civilization. Accordingly, it should be kept in mind that to the extent that we can predict it, the architecture of the future shall be an art of the city, its fate must coincide with the development of the city, and it must be civic and democratic.

— H. P. Berlage¹

Then there is the "aesthetical consideration." the legacy of Camillo Sitte, of closed building, dead end streets sometimes with an "accent" at the end, an extremely effective way to take away the last little bit of cheerfulness from such a neighborhood by means of a false intimacy which changes our most recently built districts into stuffy beguinages; we will not speak about the endless muddling in groundplans in order to obtain some light in the inner corners of the "closed" building blocks (once more, closed because of aesthetics)

— J. Duiker²

Throughout the 20th Century, the Netherlands established and maintained a position as one of the primary incubators of modern architecture. Its contribution to the discourse evolved over the course of the entire history of the Modern Movement. Organizations such as; De Stijl, De 8, and Opbouw, through various programs of publication and exhibition were to become vehicles for the persistence of a debate that was not only to have internal implications but also extended well beyond the borders of the Netherlands. Yet, while there has been much discussion on the aesthetics of the architectural project within Dutch modernism, the discourse of aesthetics could be argued to have had an even more substantial impact on the urban agenda of the Netherlands. Figures such as H. P. Berlage, Mart Stam and Gerrit Rietveld were initial signatories on the declaration of La Sarraz in 1928, while Cornelis van Eesteren ascended to and occupied the presidency of C.I.A.M. from 1930 to 1947.

The evolution of the city toward an open structure was a gradual process of transformation and not a dramatic break from traditional conceptions of urban space. Even the large-scale expansion plans prepared by C. van Eesteren for the city of Amsterdam in 1935, in spite of their universalizing tendencies, acknowledged and maintained the significant role of the historic center in the conception of the new metropolis. Instead, a continually evolving debate that can be traced back to three separate theoretical positions informed the modernist project within the Netherlands. These are derived from: the influence of aesthetic sensibilities found in the picturesque

ideologies of Camillo Sitte as translated through the reformist theory of Berlage, the dynamic universal space of Neo-Plasticism, and the objectivist anti-aesthetic of the Opbouw group.

The primary catalyst for the development of modern housing typologies in the Netherlands was The Housing Act of 1902. The Housing Act required the implementation of building regulations by municipalities. While the new ordinance regulated qualities such as adequate hygiene, etc., the provision that was most revolutionary was the regulation of city planning. The planning regulations required municipalities that had experienced a population increase of more than twenty percent to draw up an expansion plan to be revised every ten years. The result reinforced the growing tendency to think of housing as the primary fabric of city planning.¹

It was H.P. Berlage who first brought a social theory of art to bear on the production of the Dutch City. In his summary of Camillo Sitte's work during a lecture at the Amsterdam division of the *Maatschappij tot Bevordering der Bouwkunst* in 1892, Berlage introduced the new discipline of Urban Design to the Netherlands. Out of the architectural treatment of urban design came the recognition of housing as an aesthetic issue. In summarizing Sitte's ideas, Berlage delineated the aesthetics of closure by stating that:

Gardens should be more or less at a distance from each other and not openly situated on the street, but totally surrounded by houses and accessible by two or more dissimilar portals. Through this the gardens are protected and the long rows of houses as a result become of great value.⁴

For Berlage, the idea of an aesthetic unification of the housing block was central to achieving harmonious urban development. The unified housing block was the only form befitting contemporary urban conditions, and was the key to a monumental streetscape. The block was therefore the raw material for shaping the contemporary city, an attitude which made housing a pure architectural form whose street façade could be manipulated as a singular aesthetic entity.¹ This new conception placed housing design directly into the mainstream of the aesthetic debate on urban design, and allowed it to become subjected to the deliberation over the proper architectural form for the community and the times. In *Housing and Society in Amsterdam*, the connection between the aesthetic conception of housing as pure form, and its social role as a reformer of society is illuminated by Nancy Stieber:

Housing, no less and perhaps more than any other building type, could become the vehicle for exploring a collective style. The emphasis of the architect's task in housing would then shift from its previous focus on hygienic requirements to the translation of the collective experience of society. Housing might become a channel for communicating architectural

ideas, in addition to being an economic, political and social phenomenon in the province of politicians, doctors, and social workers. In short, housing design, like urban design, could become a representational act.⁶

In lectures given at Delft in 1913, Berlage, having been influenced by the urban theories of A. E. Brinkmann's *Platz und Monument* (1906), in addition to those of Sitte, identified the beauty of the city as an organic unity between buildings and the spaces between them, the composition of streets and squares. With this conception of the city as a total work of art, Berlage adopted Brinkmann's philosophy that city planning was the shaping of space with housing.⁷

Through his political influence, Berlage exerted an enormous impact on the aesthetics of the numerous expansion plans for the city of Amsterdam executed between 1900 and 1920. Since most of the expansion areas were owned by the city it was relatively easy for the municipal council, through its committee on aesthetics, to exert a large amount of control over the quality of urban design. In connection with his revised expansion plan for Amsterdam South of 1915, Berlage urged the city to only grant building permits for large-scale development such as entire streets or squares. This would facilitate the achievement of harmony within the new districts of the city.⁸ The reverberations of Berlagian town planning theory were to remain virtually unchallenged in the Netherlands, until the institutionalization of the functional city diagram by proponents of the *Nieuwe Bouwen*.

In 1918 J. J. P. Oud, upon the recommendation of Berlage, was appointed to the department of housing for the City of Rotterdam. Oud had already worked for Theodor Fischer in Munich in 1911. Fischer, who had been supervising the extension of Munich since 1893, held the theories of Camillo Sitte in highest esteem and considered him to be "the father of modern city planning." It is certain that Oud acquired an admiration for Sitte during this period, in particular, Berlage's notion that the art of building consisted of the grouping of masses, while the detail was superfluous and of secondary value.⁹ In Oud's contribution to the first issue of *De Stijl*, a theoretical discourse dealing with the composition of urban space entitled: "Het Monumentale Stadsbeeld" (The Monumental Image of the City), he echoed many of the ideologies of the Berlage-Sitte tradition. The street and square were the determining factors of the urban plan, streets were to be defined by strings of houses, and design should be directed towards the appearance of the street, which should be defined by residential blocks. The new image was to be dominated by, "residential blocks in which the houses will be organized into a rhythmic interplay of surface and mass." This discussion of architecture's relationship to the housing program and urban planning constituted the chief contribution of J.J.P. Oud to *De Stijl* during the early period.¹⁰ But Oud went farther than Berlage in his discussion of the block by saying that its beauty would derive from modern materials, flat roofs, and emphatic rhythm. The large residential projects that Oud designed up until 1922, in the Spangen and Tusschendijken districts of Rotterdam followed the model of the closed block typologies (*Hoffjes*) advocated by Berlage. The *Hofje* typology had a communal garden occupying the center of a perimeter-housing block. In "Het Monumentale Stadsbeeld," Oud wrote, "The City is hard... To live in the city means to capture the city from its industriousness, demanding protection from those activities. To express this in practical and aesthetic terms was the premise for the design of the blocks of houses... The street: industry; the inner court: living." Fundamental to this attitude was the status of the block as the elementary unit of the urban plan.

While Oud's connection to *De Stijl* was to have an important influence on the development of his architectural language, in urban terms he established his own agenda. His early association with Van Doesburg led to successful collaborations on a number of small individual projects such as the interior for (Blocks I and V of the Spaanse Bocht). But the first real test of the new aesthetic applied to housing was Blocks VIII and IX in the Spangen district of

Rotterdam executed between 1919-1920. Oud's interest, was in developing the housing blocks out of a rational and economical disposition of the units, an economy of means that he felt was necessary for the contemporary housing problem. This was done:

For practical and aesthetic reasons — bearing in mind with respect to the latter that a wall facing a street should not demand particular attention but, by means of some degree of modesty and steady rhythmical movement, should create a contradiction to, and support the architectural effect of the relevant important solutions for corners and detached buildings.¹²

This interest on the part of Oud for a "degree of modesty and rhythmical movement" came into direct conflict with the spatial intentions of Van Doesburg, who was developing the color scheme for the exterior of the block. Van Doesburg's scheme projected a solution that established diagonal color relationships in order to make the dominant, static and orthogonal character of Oud's block more dynamic. Upon presentation of the design to Oud, Van Doesburg stated, "This color solution is absolute insofar as any change destroys the effect." The design was subsequently rejected by Oud, who requested that it be modified, and the resulting conflict caused Oud's withdrawal from *De Stijl* in 1920. Just prior to leaving the *De Stijl* group he wrote, "await a style-defining crystallization of form through the standardization of building elements, yet the mass-produced house seems too difficult to organize into collective assemblies."¹³ In one project after another J.J.P. Oud moved gradually away from the principles of closure. In an article published in the *Bouwkundig Weekblad* on "Future Architecture and its Possibilities," Oud suggested that cubism — no mention of *De Stijl* — performed the role of effecting the transition from "the natural to the intellectual, i.e. from representation to plasticity, or from enclosedness to spatiality." In spite of the painterly potentials of the new art however, Oud believed that architecture was different from the "free" art forms, in that architecture was to be both beautiful and useful. This difference was manifest in the constructed nature of architecture as a manufactured product. The revolution in design was chiefly attributed to new methods of construction. Materials such as concrete had no historical or preconceived forms. The proper integration of painting and architecture was relegated to a future when the material and the aesthetic could support a true collaboration.¹⁴ The doubts that Oud had with reconciling the ideas of *De Stijl* were eventually confirmed by Van Doesburg's publication in a 1921 issue of *De Stijl*, the article, "Towards a Plastic Architecture," in which he wrote, "the new architecture has destroyed both monotonous repetition and the rigid similarity of two halves, the mirror image, symmetry. It does not recognize repetition in time, the street wall or standardization."¹⁵ Subsequently, Oud was to write that he had never professed to the *De Stijl* groups theories and had only publicized ideas about architecture along with designs in issues of *De Stijl*.¹⁶

Hook van Holland, and the Kiefhoek housing district completed in 1924 and 1925 respectively, continued the emphasis on the traditional elements of street and square common to Oud's earlier housing projects. Yet a change to the new unit of the cell replaced the earlier emphasis on the block as the fundamental unit of urban construction. The conversion to the cell as a primary unit of housing can be traced to two separate influences: first, the development of techniques of standardized construction, in this case, reinforced concrete, and second, an interest in the economical development of the housing unit. Kiefhoek is a complete integration of the transformed aesthetic of Berlagian town planning with the rational application of cellular multiplication. The architectural aesthetic is a result of the material possibilities of concrete — a derivation of experiments conducted at the *Betondorp* (Concrete Village) housing project built at *Watergrafsmeer* in Amsterdam in 1922 by J.B. van Longhem among others — together with Oud's developing sensibilities about the city. It was as far along the path to a theory of the

open city as Oud was to build. In 1931, the last of J.J.P.Oud's residential district designs was produced in 1931 for the Blijdorp district of Rotterdam. The clarification of rational structure that Oud had been gradually developing, lead to the first dutch proposal for a *strokenbouw* (slab block) housing model. Throughout his early work Oud was faced with the philosophical challenge of reconciling his interest in the economics of technique and typology with the relationship to the city. In these terms Oud operated neither on a pure urban planning level nor a formal one. The Blijdorp project represented Oud's attempt to develop the autonomous cell of the housing unit with the urban condition of the block. In Blijdorp, Oud demonstrated the theory of production that he had outlined in his earlier writings in De Stijl. Oud wrote that:

Acceptance of the mass-product was economically in line with the times, and from an architectural point of view, standardization occurred at a psychological moment. Anarchy in the building industry, in both an unaesthetic and a hyperaesthetic sense, (was to be) curbed by the use of mass production on a pure basis. The architect (acts) as a stage manager of the mass product, arranging it to form an architectural whole, an art of proportion."

Blijdorp anticipated the strategies of the *Nieuwe Bouwen* that he himself was not to participate in. Ultimately, Oud was to reject the "functionalistic purification of architectural language" and the implied de-construction of the city, by returning to classicism.¹⁸

It was Cornelis van Eesteren who was largely responsible for the final shift away from the aesthetic of Berlagian town planning. This transformation can be traced through a series of competition designs executed prior to his preparation of the Amsterdam General Expansion Plan of 1935, and his collaboration with De Stijl. Van Eesteren received the Prix de Rome in 1921. In fulfilling the terms of the prize, he took a study trip through Germany and Scandinavia in 1922. While in Berlin, Van Eesteren was to come in contact with avant-garde culture. During this time he also met Fritz Schumacher. Schumacher was at the time one of the most progressive town planners in Germany. Van Eesteren's acquaintance with Schumacher ultimately led to his adoption of the profession of Town Planning. In his interim report to the Prix de Rome commission, submitted for the purpose of extending his funding, Van Eesteren reflected on the problem of urban construction by focusing on the functioning of traffic and zoning." Also during this period, he took up studies at the Bauhaus Weimar, where he was to begin an acquaintanceship with Theo Van Doesburg. Their collaborations of the time produced a number of well-known experiments in neo-plasticism."

The first of the urban projects executed by Van Eesteren was a competition entry for the Rokin in Amsterdam submitted in 1924. Berlage was chairman of the competition jury. The Rokin competition brief, supplied by the municipal council, asked for a design that would fill in the existing canal that ran the length of the space and provide a carpark. Apparently, in Amsterdam, asphalt was the subject of enthusiastic experimentation. C. van Eesteren's entry recognized the change in the spatial profile that would be created by this significant transformation of the groundplane. The design, which was given the motto "elementair," proposed mediating the transformed spatial condition of the urban situation with a new series of elements defining the space. For Van Eesteren, the excessive horizontality created both by filling in the canal, along with the development pressures established by the new planning regulations, required a vertical contrast. The proposal therefor inserted a tower block halfway down the urban space. The tower design was an alarming prospect for the proponents of the Amsterdam School and was rejected by the jury in the first round." In his explanatory notes on the Rokin competition, Van Eesteren wrote:

Road-Cars-Carpark-Trams-Offices-Warehouses-Asphalt.
Look at the reality — the only basis for solving the Rokin puzzle. I call the design reproduced here "elementary,"

because it is constructed from the elements of the district in question. The entire expansion of Amsterdam ought to be studied in such an elementary fashion. Is it not foolish to argue about a question of detail for years, when the development of the whole city is left to chance.?!

The elementarism of the Rokin proposal was clearly derived from the principles of De Stijl that stemmed from C. van Eesteren's collaborations with Theo Van Doesburg. His theoretical writings on the subject of urban construction make it clear how closely his work fit with that of Van Doesburg. Umberto Barbieri in, *The City has Style*, makes the following observation about the relationship:

Whereas Van Doesburg's observations on aesthetics in the early years of De Stijl were a cultural and aesthetic source of inspiration to Oud for "evolving" a tradition of Dutch architecture and urban construction, after 1922 De Stijl was an instrument which Van Eesteren employed to "revolutionize" architecture and urban construction from the inside. He based his revolution on an adequate, productive implementation of elementary principles in a decompositional and compositional sense.²³

The elemental strategy of urban composition initially explored in the Rokin Competition was to be further tested in Van Eesteren's 1925 "equilibrium" competition entry for the redesign of the Unter den Linden in Berlin, an entry which received first prize and was to establish his reputation as an urban planner. The Proposal for the Unter den Linden included a number of tower elements in addition lower elements defining the street. The project:

Constituted the epilogue to a tradition: a final ingenious attempt to reconcile the traditional street facade, the problems of tall buildings and the irresistible pressure to centralize business functions at the expense of residential ones, within the physical constraints of the historic city.²⁴

In Van Eesteren's project, the major historic monuments of the Unterden Linden are preserved, while two colossal perimeter blocks framed either side of the street. The long horizontal of the twenty meter high street facade is given vertical emphasis by a series of towers along the street including: five fifteen story towers partway along the street, a twenty story tower next to the Pariser Platz, and a thirty story tower at the corner of the Unter den Linden and the Friedrichstrasse. Colin Rowe was to later write that Van Eesteren had been way ahead of his time by comparing the "equilibrium" scheme with that of Ludwig Hilberseimer's 1928 project for an area east of the Friedrichs Forum. Rowe concluded that Van Eesteren had made an urban collage that was sympathetic to the historic structure of the street layout while introducing modern elements, thereby reconciling both the modern and the traditional city.²⁵

Subsequent to completing the competition for Berlin, Van Eesteren was to make a final break from Berlagian Town Planning. By 1926, the collision between the aesthetic and functional problems of the contemporary city had made it clear that Berlage's planning policies no longer had much relevance. In, *The Five Minute City*, a lecture written in 1928 Van Eesteren wrote:

Some of the brighter architects observed (the ugliness of the Nineteenth Century City) ...and tried to grasp the "artistic principles of town planning" (Sitte). But instead of trying to analyze the modern city, they began analyzing the historic cities and attempted to attune their aesthetic rules to them. They did not realize that they could only construct a facade, a theatrical sham. They only worked on the surface, the skin of the city. They did not touch on the causes of the sickness.

— Cornelis van Eesteren²⁶

While his scheme for the Unterden Linden was highly praised for its spatial characteristics, Werner Hegeman, the chairman of the jury

nevertheless had a number of valid criticisms of the parti. Among these was the criticism that high-rise construction generated significant traffic problems. This was a realization that Van Eesteren had not fully come to terms with. These criticisms perhaps prompted him to enter a competition for Paris in 1926 that focused on traffic problems. This Project was executed in collaboration with Georges Pineau who had been studying town planning at the Ecole des Hautes Etudes Urbaines, a course that stressed the gathering of urban data in the preliminary stages of planning. Pineau was to provide the statistical information while Van Eesteren executed the drawings. The competition entry bore the motto "Contiuite" derived from traffic theory. While they did not win a prize, the data gathered for the competition made it clear that a compromise between historic urban space and modern functionalism was no longer tenable. This was illustrated in a 1926 drawing for "Part of the business district of a modern city," this drawing marks the point at which C. van Eesteren finally rejected the aesthetics of Berlage.²⁷

About the 1926 design Van Eesteren explained, "Without such abstract reality (mental image) it is not possible to deal with reality and control it."²⁸ Design did not express existing reality, but acted as a counter-foil to reality in terms of contemporary society. This notion allied Van Eesteren with the ideas of Piet Mondrian, who provided much of the theoretical foundation for De Stijl. Mondrian's influence clearly affected Van Eesteren's definition of urban beauty: "Urban Beauty arises from the plastic equilibrium of the components, from which the city or part of the city in question is constituted."²⁹

By 1929 when Van Eesteren assumed a position at the Urban Development Department in Amsterdam, he had already articulated a theory of urban elements and events, in which the city became a question of relations and not of form. This philosophy which was to be articulated in his work as president of CIAM focused on the four functions of the city, and was to become the basis for the subsequent 1935 expansion plan for Amsterdam. A plan that was to affect the development of the city until the year 2000.

The philosophical position, adopted by Cornelis Van Eesteren, about the construction of the city was clearly subjected to aesthetic criteria developed by the De Stijl group. In this regard, Van Eesteren's urban work can be seen to be an attempt at reconciling the diverse enthusiasms of urban beauty and the problems of the modern city. This was not the case with the architects of De 8 en Opbouw, at least initially. The Manifesto published by the group in 1927 in the journal; *i 10*, attacked aestheticism as the basis for architecture. The manifesto described the views of the group in five propositions. These were basically a plea for the replacement of the closed block system with the open structure of the city. This was a conclusive declaration of the principles of the *Nieuwe Bowen*. The experiments in the rational production of housing executed in Germany and the Soviet Union, the dissemination of ideas through CIAM, and in particular the work by the Dutch architect Mart Stam at the Hellerhof housing estate in Frankfurt of 1929-1931, were the basis for the growing interest in the ideals of the *Nieuwe Bouwen* within the Netherlands. Nevertheless, the ideals of open block planning were resisted by the established architectural community until two events finally solidified the position of the *Nieuwe Bowen* within Dutch housing. The first was the preparation of a report entitled "Organic Living in the Open City," that was presented to the Netherlands Institute of Housing and Town Planning in Amsterdam in 1932, the day on which the exhibition on; "De Rational Woonwijk" was opened, an exhibition that included the work by Mart Stam at Frankfurt.³⁰

The second event was a competition for inexpensive workers dwellings sponsored by the Society for the Promotion of Architecture, Society of Dutch Architects. The competition was to design workers dwellings that were both good and inexpensive. A thousand dwellings, fifty shops and schools had to be located on an imaginary site measuring 240 x 300 meters in Amsterdam. Of the ninety-two entries submitted, three of the five *Nieuwe Bouwen* projects were

awarded prizes. This was a great victory for the Architects of the *Nieuwe Bowen*, and solidified the position of open block planning within the Netherlands.³¹

The final breakthrough for the *Strokenbouw* housing model in came at the Landlust district in western Amsterdam in 1932 designed by Merkelbach and Karsten, members of De 8 en Opbouw. For the first time in Amsterdam housing blocks were turned at right angles to the street. From then on, in Amsterdam, the closed block became a thing of the past. The subsequent construction of Van Eesteren's General Expansion Plan of 1935, ongoing for the remainder of the Twentieth Century, was to be developed as an open structure.

NOTES

- ¹ H.P. Berlage, "Stedenbouw," *De Beweging* 10, no. 3 (March 1914): 226-227
- ² J. Duiker, "Boekbespreking", *De 8 en Opbouw*, 3, No.6 (1932): 61. A review of the CIAM publication, *Rationelle Bebauungsweisen* (Frankfurt, 1931).
- ³ Donald I. Grinberg, *Housing in the Netherlands 1900-1940* (Delft University Press, 1977), p. 38.
- ⁴ Donald I. Grinberg, *Housing in the Netherlands 1900-1940* (Delft University Press, 1977), p. 42. Grinberg translates portions of the text of Berlage's lecture which was published serially as, "De Kunst in Stedebouw" in *Bouwkundig Weekblad*, 12 (1892): 8791, 101-102, 121-124, 126-127.
- ⁵ Nancy Stieber, *Housing Design and Society in Amsterdam, Reconfiguring Urban Order and Identity, 1900-1920* (Chicago: The University of Chicago Press, 1998), pp. 65-66. The dynamics of the debate between social reform and aesthetic concerns is masterfully illuminated in this book which uncovers the complex political machinations that led to the formation of the Amsterdam school and the introduction of housing to the architectural problem.
- ⁶ *Ibid.*, p. 66.
- ⁷ *Ibid.*, p. 219.
- ⁸ *Ibid.*, p. 221.
- ⁹ Donald I. Grinberg, *Housing in the Netherlands 1900-1940*, p. 44
- ¹⁰ Umberto Barbieri, "The City has Style," *De Stijl, Neo Plasticism in Architecture, Het Nieuwe Bouwen* (Delft University Press, 1983), p. 129. One of five catalogs from a series of exhibitions on "Het Nieuwe Bouwen" organized by the Netherlands Museum of Modern Architecture in collaboration with Four other museums in the Netherlands.
- ¹¹ J.J.P. Oud, "Het Monumentale Stadsbeeld," *De Stijl* I. 1. (1917): 10.
- ¹² Cees Boekraad, "Style and Anti-Style," *De Stijl, Neo Plasticism in Architecture, Het Nieuwe Bouwen* (Delft University Press, 1983), p. 59.
- ¹³ J.J.P. Oud, "Bouwkunst en normalisatie bij den massabouw." *De Stijl*, 1, No. 7 (May 1918): 79.
- ¹⁴ J.J.P. Oud, "Over de toekomstige bouwkunst en hare architectonische mogelijkheden," *Bouwkundig Weekblad*, no. 24, (1921): 147-160. Lecture delivered to Opbouw.
- ¹⁵ Theo van Doesburg, "ot een beeldende architectuur," *De Stijl*, VI, No. 6/7 (1924): 81.
- ¹⁶ Cees Boekraad, "Style and Anti-Style, Theo van Doesburg and Architecture," *De Stijl, Neo Plasticism in Architecture, Het Nieuwe Bouwen* (Delft University Press, 1983), p. 60.
- ¹⁷ J.J.P. Oud, "Bouwkunst en Normalisatie bij den massabouw," *De Stijl* II, No. 7 (1918): 79.
- ¹⁸ Umberto Barbieri, "The City has Style," *De Stijl, Neo Plasticism in Architecture, Het Nieuwe Bouwen* (Delft University Press, 1983), p. 129.
- ¹⁹ S. U. Barbieri, "Stedebouwkundige Opmerkingen", in; *Architectuur en Volkshuisvesting* (Nijmegen 1981), p. 104
- ²⁰ Vincent Van Rossem, in "Introduction," C. van Eesteren, *The*

- Idea of the Functional City* (Rotterdam: NAI Uitgevers, 1997), p. 11.
- ²¹ *Ibid.*, p. 15.
- ²² C. van Eesteren, "Modern Stedebouwbeginselen in de Practijk", *De Srijl* VI.10/11 (1925): 162. C. van Eesteren, "Over het Rokinvraagstuk", i 10, 1.3 (1927): 83.
- ²³ Umberto Barbieri, "The City has Style," *De Stijl, Neo Plasticism in Architecture, Her Nieuwe Bouwen* (Delft University Press, 1983), pp. 132-133.
- ²⁴ Vincent Van Rossem, in "Introduction," C. van Eesteren, *The Idea of the Functional City* (Rotterdam: NAI Uitgevers, 1997), p. 15.
- ²⁵ Colin Rowe, "The Present Urban Predicament." in: *American Architectural Quarterly*, 11 (1979), nr. 4, pp. 40-48, op. Cit. p. 44.
- ²⁶ C. van Eesteren, *The Idea of the Functional City* (Rotterdam: NAI Uitgevers/Publishers; The Hague: EFL Publications, 1997), p. 51. Excerpt from the lecture: "The Five Minute City," 1928.
- ²⁷ *Ibid.*, pp. 20-21.
- ²⁸ *De Stijl*, VIII, 79/84 (1927): 96.
- ²⁹ C. van Eesteren, "Modern Stedebouwbeginselen in de praktijk," *De Srijl*, VI, 10/11 (1925): 166. Excerpted from: Helma Hellinga, "The General Expansion Plan for Amsterdam," *Amsterdam 1920-1960, Het Nieuwe Bouwen* (Delft University Press, 1983), p. 68.
- ³⁰ Helma Hellinga, "The General Expansion Plan for Amsterdam," *Amsterdam 1920-1960, Het Nieuwe Bouwen* (Delft University Press, 1983), p. 25.
- ³¹ *Ibid.*, pp. 25-27.