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Content

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When it comes to modern housing, the usual gospel is the myth of the dissolution of the dense urban fabric of the 19th Century city and the invention of new forms of green settlements and estates. In the background of this myth lurk the ubiquitous avantgardist models of anti-urban revolution: Ebenezer Howard's "Garden City" (1898) which aimed to create a new town-country-entity to rival with the existing cities, Bruno Taut's "Dissolution of the City" (1920) which envisaged the establishment of new settlements in the countryside and the destruction of the old cities, Le Corbusier's urban ideologies which culminated in the openly aggressive statement "The corridor street must be killed" (1925), declaring war on traditional urban spaces, Frank Lloyd Wright's "Broadacre City" (1935) which created the model for ubiquitous sprawl and Hans Scharoun's "Town-Landscape" for Berlin (1946) which aimed to generate a natural living environment instead of cities.

All these general city models envisaged the dissolution of urban dwelling typologies which had a direct connection to the street and thus architecturally defined public spaces. This myth of the ongoing dispersion of urban dwellings in modern architecture and urban design was deliberately propagated by leading avantgardists in the 1920s. In the journal *Das Neue Berlin* (1929), Walter Gropius published a series of plans designed to underline the supposed inevitable and scientifically sustained evolution "vom Block zur Zeile" ("from the block to the bar") (Fig. 1). Ernst May added an additional intermediary step to this diagrammatic sequence and republished it in the journal *Das Neue Frankfurt* (1930). Somewhere between the densely built-up blocks of the 19th Century city and the rigidly north-south-oriented bars of the late 1920s, the reformed urban block – a perimeter block which introduced light, air and greenery into the block with a large courtyard while still defining the public street space with continuous facades – was interpreted as only an intermediary step which must be overcome in the name of modernity.

The same method of proving progress was used by Clarence Stein in the 1940s, adapting the diagram to the United States by using examples from New York.[1] Significantly, here the

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[1] Clarence S. Stein, "Toward New Towns for America", in: *The Town Planning Review*, vol. 20, no. 3, 1949, pp. 203-282, fig. p. 209.

evolution of reducing densification stops with the reformed urban block, not advancing to the radical solutions of European avantgardists but staying with pragmatism within the reality of American urbanism. It comes at no surprise that one of the major promoters of European avantgardist urbanism utterly misinterpreted the relevance of the reformed urban block by simply ignoring its origins and its spread. When Sigfried Giedion stated in *Space, Time and Architecture* (1946) that "it was J. J. P. Oud who first used the interior courtyard as a means of humanizing the tenement blocks in his Tusschendijken settlement (1919)"[2], he overlooked the fact that the first enlarged green courtyards were already in place in Berlin, Vienna and London in the 1890s. Moreover, this step of reform was not due to one of the avantgardist heroes, but to the generation of fathers. Furthermore, it was not overcome by avantgardist development but flourished until the Second World War – as we will see below.

The easily recognisable formula "vom Block zur Zeile" was then repeated in a rather unfortunate way in Philippe Panerai, Jean Castex and Jean-Charles Depaule's study *De l'îlot à la barre* (1977) which aimed to critically review modernist housing estates and carefully promote the advantages of reformed urban blocks in the context of the Postmodernist re-appraisal of urban spaces.[3] However, thanks to its specific selection of historic examples, it confirmed the thesis of the general historic evolution "from the block to the bar" which then became the usual interpretation of the development of modern housing in the early 20th Century.

More recent overviews which one might expect to be informed by the broad wave of historiographic re-appraisal of traditionalist approaches also repeat this modernist interpretation. In *Modernity and Housing* (1993), Peter G. Rowe pretends to deal with modern housing in general, but again simply ignores all attempts to reform urban blocks and to build modern dwellings in a deliberately urban setting. Only avantgardist approaches, mostly inventing a green setting for housing, are considered to be modern, not the more reformist and urban approaches which were also at one time used in the battle against poor housing conditions under the banner of modernity. This view was recently unwillingly supported by Werner Oechslin who aims to put

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[2] Sigfried Giedion, *Space, Time and Architecture. The Growth of a New Tradition*, Cambridge, MA: Harvard University Press 1946, p. 525.

the emphasis on modern architects who dealt with the streetscape and the urban space. By not addressing the essential examples of urban block housing, both in practice and in theory, he fails to balance the historical relevance of heroes such as Gropuis and Le Corbusier to whom he repeatedly refers.[4]

This article deals with examples of modern housing which attempted to reform the metropolis, not to overcome it; to define public spaces by following street lines, not to destroy it by setting autonomous patterns; to address the public sphere using urban facades, not to ignore it with a lack of meaningful design; to contribute to the vivid atmosphere of the city by including various uses, not to destroy it by functional zoning. All these criteria, most of which are at the core of urban design concepts today, were also discussed at the time, and this discourse will be reconstructed and interwoven with the examples.

The goal of this article is twofold. Firstly, it is an attempt to revise the interpretation of the one-dimensional historical development "from the block to the bar". The supposed intermediary step of the reformed urban block was in fact a long lasting model from the end of the 19th Century until the Second World War. Furthermore, it was the predominant and therefore historically much more relevant model. A simple glimpse at London's public housing programme may radically rebalance the usual view of the importance of anti-urban avantgardist typologies. Even in London, well known for its Garden Cities, the ratio between inner urban block estates and suburban cottage estates, created by London County Council between 1893 and 1937, is 90% blocks to 10% cottages.[5] The movement to reform the urban block has also been an international phenomenon. All major European and American cities display examples. It was also highly creative since it not only invented various patterns of city-friendly typologies, but also adapted to a huge variety of local urban forms and architectural styles. Reformed urban blocks finally deserve their leading place in the history of modern housing.

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[3] Philippe Panerai, Jean Castex, Jean-Charles Depaule, *Formes urbaines. De l'îlot à la barre*, Paris: Dunod 1977; recently translated into english: Philippe Panerai, Jean Castex, Jean-Charles Depaule, Ivor Samuels, *Urban Forms. The Death and Life of the Urban Block*, Oxford: Architectural Press 2004.
[4] Werner Oechslin, "Auf die lange Bank der Modern. Tabled by Modernism, in: *Daidalos*, vol. 60 (Wohnen. Housing), 1996, pp. 16-29.

Secondly, this article aims to propose successful examples for urban dwellings which may be useful for future urban development. Most of the avantgardist estate developments using bars or towers are today considered as failures: architecturally, in terms of urban design, functionally, socially, and often also economically. The vast majority of reformed urban blocks which will be explained in this article are highly successful. They are of high-quality design and build, they create spatially defined urban neighbourhoods, they allow for mixed use, social mixing and conversion and most of them are still in good shape and functioning well today. In short, they are examples of a well tested typology which had to solve similar problems to those we face today, namely to create urban dwellings with a high density in terms of population, use and architecture while at the same time providing good sanitary conditions, air, light and green spaces. In these times when urban designers tend to be divided into neo-avantgardists who ignore all historic experiences and neo-traditionalists who ignore all modern developments, the examples of reformed urban blocks may show that there has been a branch of modern urban design and housing reform which produced highly successful buildings and neighbourhoods.

This article is structured according to the major centres of urban block reform in Europe and North America in order to provide evidence of the international spread of this building type. In each city, the development is followed chronologically to put the emphasis on the local tradition. Thus it is possible to recognise the lasting elements of design traditions which in the case of the reformed urban blocks are more important than supposed historical breaks. By co-ordinating housing theories and local building history, the objective is to re-locate the historic discourse. Once again, it is surprising how closely specific positions relate to specific local conditions – even if the international exchange of ideas through journals and conferences was an obvious reality since the late 19th Century. Finally, the conclusion questions the paradigms which are generally used to interpret the development of modern architecture and urban design in the early 20th Century. Instead of further stretching the concepts of innovation or style, it will be proposed to use the paradigm of urbanity to reconsider the development of modern architecture and to re-evaluate its relevant examples.

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[5] London County Council, *London Housing*, London: LCC 1937: appendix list mentions 20 cottage estates and 173 block dwellings developed by the LCC.

1. Berlin and Germany

Berlin with its continuous fabric of six-storey *Mietskasernen* (tenements) on James Hobrecht's extension plan from 1862 was not only the location of the densest urban development in Europe, it was also a centre of housing reform – already 40 years before the city became ultimately denounced as "the largest tenement city in the world".[6] Housing reform by no means implied a general rejection of the metropolis with its block dwellings while favouring suburban settlements. On the contrary, Berlin architect Theodor Goecke, a leading figure of tenement reform and later editor of the first journal on urban design "Der Städtebau", emphatically underlined the importance of urban life not only for wealthy people but also for the working class. In an article on "Berlin's working class tenement. A technological and social study" from 1890, he rejected the idea that workers preferred living in the suburbs: "No, the worker prefers to be surrounded by the hustle and bustle of the city. He enjoys the excitement of the streets, he takes full advantage of the size of the community in satisfying his needs and it is here that he finds his pleasures. For this reason many leave their work places in the countryside every year. Therefore, nothing would be a greater mistake than building lots of workers houses far from the city."[7]

This praise of urban life not only included occasions for social gatherings and cultural entertainment in the surroundings, but also a mixture of functions within the tenement block itself, when he stated: "On the ground floor of the front house there are nearly always shops and pubs."[8] The tenement block provided an ideal typology for mixed use. And furthermore, he suggested no specific design for a specific class, no social segregation: "How do you plan a

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[6] Werner Hegemann, *Das steinerne Berlin. Geschichte der größten Mietkasernenstadt der Welt*, Berlin: Kiepenheuer 1930.

[7] "Nein, der Arbeiter will eben im Getriebe der Stadt bleiben; er fühlt sich wohl im Straßengewühl; er benutzt die Vortheile eines großen Gemeinwesens beim Einkauf seiner Bedürfnisse; hier findet er seine Vergnügungen. Deswegen verlassen alljährlich Viele die Arbeit auf dem Lande. Nichts wäre daher verkehrter, als im großen Stile Arbeiterhäuser fern von der Stadt erbauen zu wollen." Theodor Goecke, "Das Berliner Arbeiter-Miethshaus. Eine bautechnisch-soziale Studie", in: *Deutsche Bauzeitung*, vol. 24, 1890, pp. 501-502, 508-510, 522-523, quote p. 501. Cf. Nicholas Bullock and James Read, *The Movement for Housing Reform in Germany and France 1840-1914*, Cambridge: Cambridge University Press 1985, p. 83.

[8] "Im Vorderhaus befinden sich unten fast immer Ladengeschäfte und Schenken." Theodor Goecke, "Das Berliner Arbeiter-Miethshaus. Eine bautechnisch-soziale Studie", in: *Deutsche Bauzeitung*, Bd. 24, 1890, S. 501-502, 508-510, 522-523, quote p. 502.

working class tenement? As far as possible like a usual tenement building."[9] This ideal of a tenement for all social classes was well informed by Hobrecht's concept of social mixing within a single block, with the more noble dwellings being located in the front building and the lower floors and the more simple dwellings in the backyard buildings and the upper floors.[10] Goecke, despite all his criticism of the densely built up blocks, shows no radical rejection of the existing situation and no visionary propagation of a utopian ideal, but a realistic approach towards making a difference. This reformist approach can also be seen in the model designs which he proposed in his article - the urban block is systematised and the floor plans are improved, but the courtyards are still quite small and the block still contains several internal wings.

A similar approach for improving the housing situation of the working class was proposed by Paul Dehn in 1892 in a workers' journal. Most of the workers would not like "to miss out on the amenities of the city, street lights and water supply, schools and doctors, pleasures and pubs."[11] Urban infrastructure, education, health care and entertainment all supported the idea of urban housing typologies for workers instead of rural or suburban settlements.

This urban ideal was reflected in the first housing reform developments which can be observed paradigmatically in a sequence of projects by Alfred Messel. The ideal of a reformed urban block with a large green courtyard emerged in a project for the Verein zur Verbesserung kleiner Wohnungen on the Weisbach'sche estate in 1890, but remained unbuilt.[12] In 1893-94 Messel was able to realise a first example with his buildings in Sickingenstraße for the Berliner Spar- und Bauverein, but this consisted only of two lots which he combined to create one larger courtyard.[13]

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[9] "Wie plant man das Arbeiterhaus? Möglichst wie ein gewöhnliches Miethshaus." Theodor Goecke, "Das Berliner Arbeiter-Miethshaus. Eine bautechnisch-soziale Studie", in: *Deutsche Bauzeitung*, Bd. 24, 1890, S. 501-502, 508-510, 522-523, quote p. 508.

[10] Johann Friedrich Geist and Klaus Kürvers, *Das Berliner Miethaus 1740-1862*, Munich: Prestel 1980; Johann Friedrich Geist and Klaus Kürvers, *Das Berliner Miethaus 1862-1945*, Munich: Prestel 1984; Julius Posener, *Berlin auf dem Wege zu einer neuen Architektur. Das Zeitalter Wilhelms II.*, Munich: Prestel 1979, p. 365.

[11] "auch die Annehmlichkeiten der Stadt nicht entbehren, die Straßenbeleuchtung und die Wasserleitung, die Schule und den Arzt, das Vergnügen und das Wirtshaus." Paul Dehn, "Neues zur Arbeiterwohnungsfrage", in: *Concordia. Zeitschrift des Vereins zur Förderung des Wohles der Arbeiter*, No. 294, 1892, pp. 1426-1427, quoted after: Adelheid von Saldern, "Im Hause, zu Hause. Wohnen im Spannungsfeld von Gegebenheiten und Aneignungen", in: Jürgen Reulecke (ed.), *Geschichte des Wohnens, vol. 3, 1800-1918. Das bürgerliche Zeitalter*, Stuttgart: DVA 1997, pp. 145-332, quote p. 218.

[12] *Deutsche Bauzeitung*, vol. 25, 1891, pp. 181-182.

[13] Julius Posener, *Berlin auf dem Wege zu einer neuen Architektur. Das Zeitalter Wilhelms II.*, Munich: Prestel 1979, pp. 344-346.

The facade towards the street also displayed his ambitions for reform. The building no longer has the repetitive pattern of classical forms as the *Mietskasernen*, but rather a picturesque arrangement of traditional architectural elements to introduce a sense of home. Two shops had been integrated into the ground floor.

The next step was achieved in Messel's buildings in Proskauerstraße for the Berliner Spar- und Bauverein in 1897-98 (figs. 2, 3). In this case, he was able to design half a block with several lots and he arranged the 125 flats around a larger interior green courtyard. Again, he did not design a monofunctional complex, but included a restaurant, a library, a nursery, a bakery and other shops into his buildings in order to improve both the quality of urban living and the sense of proletarian community. As one contemporary critic noted, the block brought sanitary improvement thanks to "an abundant supply of light and air through the design of spacious courtyards" as well as artistic improvement thanks to "an artistic design of the exterior which satisfies the aesthetically educated mind".[14] The picturesque treatment of internal and external facades aimed to raise the culture of proletarian dwelling.

The model of the reformed urban block was finally fully realised in 1899-1905 in Messel's block in Kochhannstraße and Weisbachstraße for the Verein zur Verbesserung kleiner Wohnungen. Here, an entire block was only built at its edges, forming a proper *Blockrandbebauung* or perimeter block while leaving the entire internal space for recreation. In this case, the block not only contained formal gardens for the community of inhabitants but also a nursery.[15]

The question of block reform was not restricted to workers' housing, it was a question which affected all social classes as the tenements in Hobrecht's city – despite the division of workers' quarters in the East and middle-class quarters in the West – tended to be used by several social classes. In this general sense H. Chr. Nußbaum tackled the question "Which is preferable - open

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[14] "reichliche Zufuhr von Licht und Luft durch die Anlage geräumiger Höfe", "eine den ästhetisch gebildeten Sinn befriedigende künstlerische Gestaltung des Äusseren", A. R., "Arbeitermiethäuser in Berlin", in: *Berliner Architekturwelt*, vol. 2, 1900, pp. 315-325; quoted after: Julius Posener, *Berlin auf dem Wege zu einer neuen Architektur. Das Zeitalter Wilhelms II.*, Munich: Prestel 1979, p. 367.

[15] Nicholas Bullock and James Read, *The Movement for Housing Reform in Germany and France 1840-1914*, Cambridge: Cambridge University Press 1985, pp. 125-137. Juan Rodriguez-Lores and Gerhard Fehl (eds.), *Die Kleinwohnungsfrage. Zu den Ursprüngen des sozialen Wohnungsbaus in Europa*, Hamburg: Christians 1988, pp. 112-122.

or closed block building?" in the first volume of the leading urban design journal *Der Städtebau* in 1904.[16] His preference was for enclosed urban blocks with interior courtyards, mainly for practical reasons. The courtyards would provide green spaces, protected from the noise of the streets and delivering fresh air. Furthermore, the perimeter block would be much more cost-effective than detached houses.

In the second volume of this journal, the editor Theodor Goecke examined "Dwelling blocks in Berlin", searching for alternative designs to the dense block especially for middle-class housing. Instead of building up the very large blocks with courtyard buildings, he proposed to introduce internal streets, public or private, into the block and to open it towards the street with courts in the manner of *courts d'honneur*: "The means for a better or different layout consist of the arrangement of interior streets, be it public or private streets, and of dwelling courts in varied ways, of indenting the alignment and of the horseshoe- or meander-like design of the streetfront."[17] To underline his argument, he displayed several existing examples of private streets in Berlin, including the famous Riehmers Hofgarten in Berlin-Kreuzberg, built by the master builder Wilhelm Ferdinand August Riehmer as a private speculative development with internal greened streets between 1881 and 1899. He also illustrated his article with designs for a large block in Berlin-Charlottenburg for the Berliner Spar- und Bauverein by the architects P. Kolb, R. Goldschmidt, Theodor Kampffmeyer and Theodor Goecke (fig. 4). The designs for this multifunctional block, which was meant to include 900 flats, a community centre, a restaurant, a bakery and 20 shops, showed a huge variety of formal solutions including open courts, closed courts, large courts, small courts and internal streets.

Taking the opposite point of view, Goecke discussed the same problem in an article on "Public gardens and parks surrounded by buildings" in 1908. Here the question was not how to introduce a green space into the urban block, but how to build around public green spaces. The result was the same - an urban perimeter block with a green backyard. To support his view, Goecke quoted

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[16] H. Chr. Nußbaum, "Verdient die offene oder die geschlossene Bauweise den Vorzug?", in: *Der Städtebau*, vol. 1, 1904, pp. 29-31, 42-45, 103-107.

[17] "Die Mittel zur besseren oder anders gearteten Ausnutzung bestehen in der Einlage von Zwischenstraßen, sei es nun öffentlichen oder Privatstraßen, und von Wohnhöfen verschiedener Art, in der Einbuchtung der Baufluchtlinie und in der hufeisen- oder mäanderförmigen Gestaltung der Straßenfront." Theodor Goecke, "Berliner Wohnbaublöcke", in: *Der Städtebau*, vol. 2, 1905, pp. 127-130, 143-147, pl. 73-77, quote p. 143.

Camillo Sitte who had advocated the reformed urban block back in 1900: "'The sanitary green should not be located within the dust and noise of the streets, but within the saved interior of large perimeter blocks."[18] These internal courtyards with playgrounds would not only provide hygienic conditions, but would also be perfect for mothers supervising her children. To achieve this type of structure, he called for *innere Bauflucht* (internal alignment), fixing the border for buildings towards the court as the external alignment fixed the border towards the street.

The question of urban housing was not restricted to the practical solutions for the arrangement of urban blocks. It was a general cultural question oscillating between the ideals of rural or urban dwelling. Hans Schmidkunz fundamentally tackled this question of "Urban and rural dwelling" and the often resulting compromise of suburban arrangements in a seminal article in *Der Städtebau* in 1908. While admitting the advantages of a real urban and a proper rural setting, he questioned the qualities of the suburban reality: "Some might say: that's OK in the centre of the town, that's OK far out in the countryside, but somewhere in-between, no way! Indeed we experience these intermediary cases extremely often. [...] It is therefore generally the case that, on the one hand, one has to renounce the advantages of intimate metropolitan life, on the other one does not yet achieve the advantages of the country while already the disadvantages of long distances come into play."[19] The ordinary suburb did not combine the advantages of town and country as once Ebenezer Howard had hoped for, but the disadvantages of both.

In general, Schmidkunz valued the inspiring quality of cultural urban life and distrusted the tediousness of the countryside for the urbanite: "The further away from urban life someone is living, but without being a professional peasant, the more the relatively monotone and spiritually

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[18] "'Das sanitäre Grün gehört nicht mitten in den Staub und Lärm der Straßen, sondern in das geschützte Innere großer, ringsherum verbauter Baublöcke.'" Theodor Goecke, "Öffentliche Gärten und Parkanlagen mit Randbebauung", in: *Der Städtebau*, vol. 5, 1908, pp. 2-5, 19-21, pl. 1-2, quote p. 3.

[19] "Mancher wird sagen: mitten in der Stadt – gut! Weit draußen auf dme Land – auch gut! Aber in der Mitte dazwischen – nicht gut! Tatsächlich haben wir es mit diesen Zwischenfällen ganz besonders häufig zu tun. [...] Dadurch aber geschieht es meistens, daß man einerseits auf die Vorteile des intimsten Großstadtlebens verzichten und seine Nachteile dahinnehmen muß, andererseits noch lange nicht die Vorteile der Ländlichkeit erreicht und doch schon die Nachteile der weiten Entfernung spürt." Hans Schmidkunz, "Städtisches und ländliches Wohnen", in: *Der Städtebau*, vol. 5, 1908, pp. 147-150, quote p. 148.

meaningless environment can depress the soul."[20] Monotony and meaninglessness in particular were the characteristics of villa suburbs: "Our outer neighbourhoods and villa colonies give to the inhabitant, at least if he is used to a higher spiritual life, apart from the more closely located natural beauty nothing but the eternally uniform streets with similar houses [...]. The daily stroll in such areas can finally generate a noticeable mental void; the individual stays as it were with himself and his sorrow and does not find the distraction and fulfilment which result from the urban bustle."[21] He continued: "But even more importantly! Such areas are usually lacking any buildings which connect the individual to the larger community. [...] no social point of focus which may inspire the social being which we call human."[22] The lack of public buildings and focal points in the suburbs not only deprived the inhabitants of a culturally inspiring urban life, but also discouraged them from becoming true social human beings by restricting them to pure individuality.

This broader concern was mirrored in the more practical problems of suburban life: "The housewife misses the variety of local shops, the father a library, the walker a main square which could form the destination of his constitutional, etc."[23] Monofunctional residential suburbs not only destroyed larger cultural ambitions but also caused problems in everyday life by not providing for shopping and educational facilities as well as public spaces. In general, Schmidkunz closes with the inherent contradiction of anti-urban ideologies: "There are more and more voices who criticise the trend towards urban concentration within our civilisation, who interpret the growing over-density of our cities as a deadly defect and the return to the countryside as a form of redemption. But who wants to 'return' if he has take the opposite step

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[20] "Je weiter man vom städtischen Getriebe entfernt wohnt, ohne doch berufsmäßig Landmann zu sein, desto mehr kann die verhältnismäßig gleichförmige und geistig inhaltslose Umgebung seelisch drücken." Hans Schmidkunz, "Städtisches und ländliches Wohnen", in: *Der Städtebau*, vol. 5, 1908, pp. 147-150, quote p. 149.

[21] "Unsere äußeren Stadtviertel und Villenkolonien gewähren ihrem Bewohner, wenigstens wenn er an ein höheres geistiges Leben gewöhnt ist, außer den näher als sonst liegenden Naturschönheiten schließlich nichts als die ewig gleichmäßigen Straßen mit ihren ebensolchen Häusern [...]. Das tägliche Wandern in solchen Gegenden kann schließlich eine recht spürbare geistige Leere erzeugen; das Subjekt bleibt sozusagen bei sich und seinen Sorgen und findet nicht jene Ablenkung und Ausfüllung, die dem städtischen Getriebe trotz allem zu danken sind." Hans Schmidkunz, "Städtisches und ländliches Wohnen", in: *Der Städtebau*, vol. 5, 1908, pp. 147-150, quote p. 149.

[22] "Aber noch mehr! Solche Gegenden sind meist gänzlich arm an Bauten, welche den Einzelnen mit der größeren Gemeinschaft verbinden. [...] kein sozialer Punkt, an den sich das Sozialwesen, das wir Mensch nennen, geistig anhalten könnte." Hans Schmidkunz, "Städtisches und ländliches Wohnen", in: *Der Städtebau*, vol. 5, 1908, pp. 147-150, quote p. 149.

because of any cultural need which is indispensable for every modern human being!"[24] Against the vision of ideal country life he set a *Kulturbedürfniss*, a need for culture, which attracts people to the city. Without mentioning the term, this was also a strong criticism of the rising Garden City Movement with its condemnation of the metropolis and its first resulting garden suburbs around Berlin like Frohnau and Dahlem.

In parallel to these theories on urban housing a new practice of improving urban dwellings for the middle-class evolved. The emphasis here was also on arranging larger green courtyards. The most famous and successful examples were designed by Albert Gessner, an architect who deliberately focused on urban tenements as an architectural task. In his apartment houses in Mommsenstraße and Bleibtreustraße (1903-07) or in Bismarckstraße and Grolmannstraße (1906-07) in Berlin-Charlottenburg (fig. 5), he succeeded not only in building several houses surrounding a green interior courtyard, but also in reforming the layout of the facade.[25] By varying the design for each storey and introducing traditional house elements like gables, balconies, bays and pitched roofs he achieved a six-storey tenement which looked like a single house. He therefore translated the picturesque – just transferred from the English Arts and Crafts model to Berlin's suburbs under the influence of Hermann Muthesius – onto a metropolitan scale and provided the usual *Mietskaserne* with a new sense of home. Proud of his own achievements, he published many of his buildings under the title *The German Tenement* in 1909.[26]

The typology of enlarged courtyards was able to adopt quite different characters. While Gessner's houses aimed to domesticate the tenements, there were other examples whose intention was to underline the serial character of metropolitan architecture. This tendency was outlined in B. Leibnitz's Boarding Palast in the Kurfürstendamm (1913), where a high number of small flats

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[23] "Die Hausfrau vermißt größere Einkaufsgelegenheitenin der Nähe, der Familienvater eine Bibliothek, der Spaziergänger einen Hauptplatz, zu dem ihn sein Erholungsgang führen könnte, und dergleichen mehr." Hans Schmidkunz, "Städtisches und ländliches Wohnen", in: *Der Städtebau*, vol. 5, 1908, pp. 147-150, quote p. 149.

[24] "Stets mehren sich die Stimmen, die an dem städtisch konzentrierenden Zug unserer Kultur Kritik üben, die in der wachsenden Überfülle unserer Städte einen tödlichen Schaden und im Zurückströmen aufs Land die Erlösung sehen. Aber wer will 'zurückströmen', wenn er doch wegen eines jeden dem modernen Menschen unentbehrlichen Kulturbedürfnisses den entgegengesetzten Rückschritt machen muß!" Hans Schmidkunz, "Städtisches und ländliches Wohnen", in: *Der Städtebau*, vol. 5, 1908, pp. 147-150, quote p. 149.

[25] Julius Posener, *Berlin auf dem Wege zu einer neuen Architektur. Das Zeitalter Wilhelms II.*, Munich: Prestel 1979, pp. 321-327.

[26] Albert Gessner, *Das deutsche Miethaus. Ein Beitrag zur Städtekultur der Gegenwart*, Munich: Bruckmann 1909.

were arranged next to long corridors, surrounding three large interior courts and covered by a metropolitan facade towards the street.[27]

Apart from the basic form of the large green courtyard, a variety of solutions to reform the urban block emerged in Berlin. One of these typologies was the arrangement of internal streets through the privately owned block. Examples from speculative developments were Goethepark by Paul Geldner and Andreas Voigt (1902-03) or Versöhnungs-Privatstrasse in Berlin-Wedding (1904).[28] These private internal streets were quite often only accessible through archways and also contained elements of enlarged backyards. Paul Mebes designed the famous buildings in Fritschweg in Berlin-Steglitz (1907-08) for the housing cooperation of the *Beamten-Wohnungs-Verein*,. In this project, the internal street had the character of a public road thanks to its total integration into the public street network. However, Mebes attributed a quite different character to it - while the buildings towards the public roads were higher and more repetitive in design, the houses towards the internal street, which also included a square, were lower and more picturesque. Thus he introduced a small town scale into the metropolis.

Another typology introduced an internal public square into the block. The most ambitious example was the Ceciliengärten in Berlin-Friedenau, designed by Paul Wolf in 1912 and widely published, but only built by Heinrich Lassen in 1924-28 (fig. 6).[29] This emphasis on the public space was highly estimated by a contemporary politician, city councillor Licht, in his critique of the design: "We hope that the love which was put into the planning will be recognised by the future inhabitants of this neighbourhood and will enhance their sense of belonging and their pride, their sense of home and their civic spirit. As Aristotle said, the aim of urban design is ultimately to make people happy."[30] To further explain the role of public spaces in urban

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[27] Julius Posener, *Berlin auf dem Wege zu einer neuen Architektur. Das Zeitalter Wilhelms II.*, Munich: Prestel 1979, pp. 335-337.

[28] Helmut Geisert, "Models for the Reform of Urban Housing", in: Paul Kahlfeldt, Josef Paul Kleihues and Thorsten Scheer (eds.), *City of Architecture. Architecture of the City Stadt. Berlin 1900-2000*, Berlin: Nicolai 2000, pp. 40-51, 48.

[29] Julius Posener, *Berlin auf dem Wege zu einer neuen Architektur. Das Zeitalter Wilhelms II.*, Munich: Prestel 1979, p. 302.

[30] "Zu hoffen bleibt uns, daß die Liebe, die in die Planung gelegt worden ist, von den künftigen Bewohnern dieses Stadtviertels gewürdigt werde und in ihnen etwas Anhänglichkeit und Stolz und etwas Heimatgefühl und Bürgersinn damit erweckt werde. Ist es doch schon nach Aristoteles Ziel der Städtebaukunst, die Menschen auch glücklich zu

neighbourhoods, he even alluded to Aristotle's political and ethical definition of the city and thus endowed well arranged urban tenements with the flavour of classical philosophy.

Another method of bringing light and air into the urban block was to arrange open courts towards the street like enlarged *courts d'honneur.* This model, proposed in 1903 by Eugène Hénard as a *Boulevard à redans* encircling Paris in place of the former fortifications,[31] was adopted by Mebes for his buildings at Horstweg in Berlin-Charlottenburg (1907-09), again for the Beamten-Wohnungs-Verein (fig. 7). While this solution was generally praised for its sanitary improvements, for its enlargement of the noble street facade and for its provision of more quiet places for front balconies towards the open courts, there was also criticism as this typology tended to destroy the clearly defined street space. Willy Hahn made some critical remarks on such *Straßenhöfe* (street courts) in a paper given at the First Congress of Urbanism in Düsseldorf 1912: "They might be beautiful as singular arrangements [...], but nobody would wish to repeat them too often because this would result in too great a dissolution of the street walls."[32] These open courts could not be considered as a general model because – if they were used regularly – they would destroy the spatial definition of the street. What was only a minor concern with Mebes' front courts which still clearly addressed the street was later to become a real problem with other typologies like bar buildings and tower blocks.

The Greater Berlin competition (1908-10) turned out to act as a melting pot and a laboratory for influential housing models.[33] Here we will focus on two ideas: the uniform urban block as

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machen." Licht, "Die Bebauung des Willmannschen Geländes in Schönberg", in: *Der Städtebau*, vol. 9, 1912, pp. 52-55, pl. 27-30, quote p. 55.

[31] Eugène Hénard, *Etudes sur les transformations de Paris*, Paris 1903-09: Fascicule 2: *Les alignements brisés. La question des fortifications et le boulevard de Grande-Ceinture*, Paris: Libreries-imprimeries réunies 1903.

[32] "So schön sie als vereinzelte Anlagen sein können [...], so wird niemand ihre allzu häufige Wiederholung wünschen, weil damit eine zu große Auflockerung der Straßenwandung sich ergibt." Willy Hahn, "Moderne Blockbildung im Städtebau", in: Stadtverwaltung Düsseldorf (ed.), *Verhandlungen des Ersten Kongresses für Städtewesen Düsseldorf 1912*, Düsseldorf: A. Bagel 1913, pp. 47-53, quote p. 49.

[33] For the Greater Berlin competition see: Julius Posener, *Berlin auf dem Wege zu einer neuen Architektur. Das Zeitalter Wilhelms II.,* Munich 1979; Erich Konter, "Verheissungen einer Weltstadtcity. Vorschläge zum Umbau 'Alt-Berlins' in den preisgekrönten Entwürfen des Wettbewerbs Gross-Berlin von 1910", in: Gerhard Fehl and Juan Rodriguez-Lores (eds.), *Stadt-Umbau. Die planmässige Erneuerung europäischer Grossstädte zwischen Wiener Kongress und Weimarer Republik*, Basel, Berlin and Boston: Birkhäuser 1995, pp. 249-272; Wolfgang Sonne, "Ideas for a Metropolis. The Competition for Greater Berlin 1910", in: Paul Kahlfeldt, Josef Paul Kleihues and Thorsten Scheer (eds.), *City of Architecture. Architecture of the City Stadt. Berlin 1900-2000*, Berlin: Nicolai 2000, pp. 66-77; Wolfgang Sonne, *Representing the State. Capital City Planning in the Early Twentieth Century*, Munich: Prestel 2003, pp. 101-140.

designed by architect Hermann Jansen in his first prize winning submission and the large metropolitan perimeter block containing an internal village as developed by architect Bruno Möhring and economist Rudolf Eberstadt, who won the third prize. Jansen submitted the most impressive drawings for inner urban neighbourhoods, especially in his separate project for a development of the western parts of the Tempelhofer Feld (fig. 8). He envisaged an urban block with large courtyards to provide daylight and fresh air. These courtyards would also be accessible from the streets through monumental arches. But as semi-public spaces they only featured a few individual trees and were not intended as recreational grounds since a nearby park was to serve as the real area for play and recreation. As the whole neighbourhood was treated as a unit, it not only consisted of dwelling blocks and green spaces, but also included a public square with a monumental public building. This square was designed as an enclosed urban space and thus clearly followed Sitte's aesthetics, translated onto a metropolitan scale.

The aesthetic strength of Jansen's drawing lies in the uniformity of the urban blocks, resulting in the overall harmony of the urban quarter. In fact, he not only treated the urban block as a single unit – no longer subdivided into several lots and houses – but also designed adjacent blocks in a similar manner. Thus the result was a as yet unseen unity of the urban image, a new aesthetic of the metropolis. He explained this in his accompanying report stating that his first aim was to create "city images". For this he demanded simple and uniform facades which constitute "long walls". The streets should be "slightly curved" to accomplish the "creation of interesting architectural street images".[34] The arrangement of urban dwellings was clearly considered not only as a social, sanitary or economic question, but also as an artistic task. Moreover, it was not considered separately but in connection to the aesthetics of the entire city. The design focus was on the publicly visible parts of the buildings, i.e. the facades.

These ideas for a new uniform metropolis were not a new invention by Jansen. There had been widespread discussion in Berlin about uniform street walls as an appropriate expression of democracy and the equality of people's needs in the metropolis. The leading theorist was Karl Scheffler who developed a social argumentation for uniform housing blocks in 1903. In his view,

the equal needs and the constant movement of the inhabitants of the metropolis demanded uniform floor plans which would automatically lead to uniform facades.[35] He advocated "uniformity of the street walls"[36] as a direct consequence of the social and political conditions: "We have to get used to the idea that the architecture of the future [...] will, above all, be a metropolitan art, that its fate must coincide with that of urban development, that it can only be middle-class or upper middle-class and a product of democratic culture."[37] In addition, Scheffler also noted that under the present conditions of the world economy, ever larger building societies would come into being. These global trusts would, in turn, reinforce the trend towards increasing uniformity: "The street wall will become a single coherent facade; entire urban districts will stand in architectural harmony, and this noble uniformity will later give rise to a monumental style that will deserve to be called truly modern."[38] As a necessary consequence of the social and political conditions, the homogeneous city could also be seen as an adequate expression of these conditions, i.e. as a picture of equality and democracy in an international world economy.

While Scheffler developed his aesthetic ideal as a quasi-natural consequence of social, economic and political conditions, Walter Curt Behrendt explored the practical implications of uniform blocks for the city image in his dissertation on *The Uniform Block Front as a Spatial Element in Urban Design* in 1911.[39] He suggested that the new style of the future would emerge from the construction of skeletons of tenement buildings, which all looked very similar due to the lack of differentiating ornamentation. Therefore, the urban tenement not only became ennobled as a task for ambitious architects, but was also attributed the role of a catalyst for the modern style to come. It was essential for this argument that the tenements followed the street line and thus created a clearly defined urban space, the facades precisely separating the public street from the

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[34] "lange Wandungen", "leicht geschweift", "Schaffung interessanter, architektonischer Strassenbilder", Hermann Jansen, in: *Wettbewerb Gross-Berlin 1910. Die preisgekrönten Entwürfe mit Erläuterungsberichten*, Berlin: Wasmuth 1911, p. 20.

[35] Karl Scheffler, "Ein Weg zum Stil", in: *Berliner Architekturwelt,* vol. 5, 1903, pp. 291-295. Karl Scheffler, *Berlin. Ein Stadtschicksal,* Berlin: Reiss 1910, pp. 250-253.

[36] "Uniformierung der Strassenwände", Karl Scheffler, *Die Architektur der Grossstadt,* Berlin: Cassirer 1913, p. 16.

[37] "Es ist darum dem Gedanken fest ins Auge zu sehen, dass die Baukunst der Zukunft [...] eine Grosstadtkunst sein wird, dass ihr Schicksal mit dem der Stadtentwicklung zusammenfallen muss, dass sie nur bürgerlich, grossbürgerlich und ein Produkt demokratischer Kultur sein kann." Karl Scheffler, *Die Architektur der Grossstadt,* Berlin: Cassirer 1913, p. 3.

[38] Karl Scheffler, *Die Architektur der Grossstadt*, Berlin: Cassirer 1913, p. 130.

[39] Walter Curt Behrendt, *Die einheitliche Blockfront als Raumelement im Stadtbau. Ein Beitrag zur Stadtbaukunst der Gegenwart,* Berlin: Cassirer 1911.

private dwelling blocks. The entries for the competition for the southern area of Schöneberg demonstrate just how widespread this opinion was. The majority of the 33 submissions and all of the winning designs (first prize: Bruno Möhring, second prize: Paul Wolf, third prize: Henry Groß) were characterised by uniform reformed urban blocks.[40]

Another curious variation of an urban block was developed by Bruno Möhring and Rudolf Eberstadt (fig. 9). They proposed a five storey perimeter block development which would have preserved the urban character of the buildings along the major streets.[41] But in the interior of the large-scale block, the height was reduced to three storey buildings which followed an internal ring-road and finally to low-rise two-storey houses around a central square. Thus the block contained all sorts of dwellings from tenement flats to terraced houses and single family houses, and introduced with its allotment gardens a rural element into the city. With its three distinct rings, the design may be considered as a hybrid mixture of modern metropolis, picturesque small town and garden city, all combined into one urban block.

The integration of the garden city into the metropolitan block with tenement buildings as the major defining element of the public spaces becomes even more surprising when one considers Eberstadt's rigorous criticism of the *Mietskaserne* (rented barracks or tenements). In his *Handbook of Housing and the Housing Question* from 1909, he advocated the single family house as the best solution and declared the tenement system as unimprovable, and even the reformed urban block with a green courtyard was unacceptable to him.[42] His preference was for the *Wohnstraße* (dwelling street, internal street), a concept deriving from historic town extensions where large perimeter blocks with internal gardens were opened up by internal streets.[43] As early as 1893, Eberstadt had encouraged Thoedor Goecke to design and publish a model block with interior streets and lower buildings.[44] In the version of 1910, this block had developed a

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[40] Theodor Goecke, "Der Wettbewerb um den Entwurf eines Bebauungsplanes für das Südgelände von Schöneberg bei Berlin", in: *Der Städtebau*, vol. 8, 1911, pp. 49-58, pl. 26-33.

[41] *Wettbewerb Gross-Berlin 1910. Die preisgekrönten Entwürfe mit Erläuterungsberichten*, Berlin: Wasmuth 1911. Cf. A. Gilsing, *Städtebau-Ausstellung und Wohnungs-Frage*, Bochum: Potthoff 1910.

[42] Rudolf Eberstadt, *Handbuch des Wohnungswesens und der Wohnungsfrage*, Jena: Fischer 1909, pp. 207, 210, 238-239. Cf. Rudolf Eberstadt, *Neue Studien über Städtebau und Wohnungswesen*, Jena: Fischer 1912.

[43] Rudolf Eberstadt, *Handbuch des Wohnungswesens und der Wohnungsfrage*, Jena: Fischer 1909, pp. 186-187.

[44] Theodor Goecke, "Verkehrsstrasse und Wohnstrasse", in: *Preussische Jahrbücher*, vol. 73, 1893, pp. 85-104. Cf. Juan Rodriguez-Lores and Gerhard Fehl (ed.), *Die Kleinwohnungsfrage. Zu den Ursprüngen des sozialen Wohnungsbaus in Europa*, Hamburg: Christians 1988, pp. 122-126.

distinguished metropolitan character, no longer denying the spatial qualities of high tenement buildings.

As Eberstadt himself mentioned, historic examples of such a development could be found in many cities. One possible model could have been the Cité des Fleurs in Paris, constructed during the mid-nineteenth Century.[45] The great Urban Design Exhibition organised by Werner Hegemann in Berlin in 1910 on the occasion of the Greater Berlin Competition showcased several authors with examples of this type of hybrid block with external high buildings and internal low buildings. Walter Lehwess unveiled a model block for Berlin-Schöneberg,[46] and city architect Kiehl displayed a similar idea for Neukölln which was later represented in Hegemann's *American Vitruvius*.[47] The model became very influential for projects by Fritz Schumacher in Hamburg and various other architects in Amsterdam and Rotterdam as we will see below.

Even after the First World War, when there was strong support for rural estates with allotment gardens for a self-supporting economy, metropolitan life and the reformed urban block remained lasting ideals. Architect Heinrich de Fries, the new editor of the journal *Der Städtebau*, vigorously argued in 1920 against the "pathetic sermons by the apostles of green estates".[48] An opponent of utopian or reactionary visions to dissolve the cities and to substitute them with rural estates, he clearly predicted further growth of large cities: "On the contrary, the metropolis will further grow and extend and thus will become even more decisively than today the focus of the political development both internally and externally. To fight against the metropolis is to deny this strong concentration of civilising factors, which it certainly represents."[49] The metropolis was

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[45] Jacques Lucan (ed.), *Paris des faubourgs. Formation. Transformation*, Paris: Pavillon de l'Arsenal 1996, pp. 34-37.

[46] Werner Hegemann, *Der Städtebau nach den Ergebnissen der allgemeinen Städtebau-Ausstellung in Berlin nebst einem Anhang: Die internationale Städtebau-Ausstellung in Düsseldorf*, vol. 1, Berlin: Wasmuth 1911, ill. 28.

[47] Werner Hegemann and Elbert Peets, *The American Vitruvius. An Architects Handbook of Civic Art*, New York: Architectural Book Publishing 1922, p. 185.

[48] "pathetischen Reden der Siedlungsapostel", Heinrich de Fries, "Städtebau-Gedanken", in: *Der Städtebau*, vol. 17, 1920, pp. 50-54, quote p. 52.

[49] "Die Großstädte werden im Gegenteil eine weitere Zunahme und Ausdehnung erfahren und damit noch entscheidender wie heute zu Brennpunkten der innenpolitischen und außenpolitischen Entwicklung werden. Die Großstadt bekämpfen, heißt diese starke Konzentration kulturbildender Faktoren hinwegzuleugnen, die sie nun einmal ohne jeden Zweifel repräsentiert." Heinrich de Fries, "Städtebau-Gedanken", in: *Der Städtebau*, vol. 17, 1920, pp. 50-54, quote p. 53. Cf. Carl Johannes Fuchs, *Die Wohnungs- und Siedlungsfrage nach dem Kriege. Ein Programm des Kleinwohnungs- und Siedlungswesens*, Stuttgart: Meyer-Ilschen 1918.

a consequence of developing culture, and therefore there was a demand for metropolitan ways of dwelling.

Fries himself had proposed such a vision for future urban dwelling in his book *Dwelling Cities of the Future* in 1919.[50] In this publication, he developed a superblock with internal streets and a central courtyard. The buildings are arranged in strict north-south-oriented bars for sanitary reasons, but they did not aim to destroy the street space. Rather, the north-south-streets were followed by six-storey buildings while along the east-west-streets lower buildings followed the street line, defining a public urban space and separating the interior of the block from the street. Shops were located on the ground floor next to the streets and public buildings for the neighbourhood were placed in the central court. Fries' major idea was to arrange maisonettes within the six-storey buildings, thus providing normal houses within an urban block in a vertical arrangement. Although he introduced north-south bars and the notion of the house, his proposal represented a deliberately metropolitan model, creating a high density and mixed use urban environment.

A similar model had already been proposed by Bruno Möhring as a "balcony building" in *Der Städtebau* in 1917 (fig. 10). Möhring also considered a dense urban housing typology as inevitable: "It is generally impossible to provide everybody in the metropolis with a small house. [...] A large house represents the best way of combating misery."[51] His "large house" was arranged on large metropolitan blocks and contained both small flats and maisonettes, each with a *Laube* (balcony) to provide each dwelling with an outdoor space. Within the block, he proposed green courtyards with playgrounds and stables, towards the street he envisaged shops and arcades, creating a traditional urban atmosphere. Apart from social, sanitary and economic considerations, he also put the emphasis on aesthetic considerations and the design of the street-defining facades. He aimed to create a new uniformity and imagined "that the wild jumble of bays and gables, of loggias and turrets and of mendacious ornamentation will be unified into well

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[50] Heinrich de Fries, *Wohnstädte der Zukunft*, Berlin: Verlag der Bauwelt 1919.
[51] "Es ist ganz unmöglich, in der Großstadt jedem ein Kleinwohnungshaus zu schaffen. [...] Das Großhaus wird der Not am besten steuern." Bruno Möhring, "Das Laubenhaus. Ein Vorschlag zur Verbesserung großstädtischer Kleinwohnungen", in: *Der Städtebau*, vol. 14, 1917, pp. 132-137, pl. 73-75, quote p. 133.

designed horizontal elements at the facade, and that the architectural emphasis on large building masses will dominate the street image!"[52]

The reformed urban block continued to play a crucial role in urban design practice after the First World War. In 1917, a competition asked for proposals to improve existing urban blocks in the western part of Berlin.[53] Submitting architects chose different blocks and the general strategy was to create open spaces within the blocks. Again, a huge variety of types were used, ranging from large green courts, internal streets and internal public squares to combinations of tenements and terraces.

While the appointment of Martin Wagner as city architect of Berlin in 1925 led to the construction of the famous modernist estates which abandoned the model of the reformed block and finally introduced strict north-south-bar-buildings in the Reichsforschungssiedlung Haselhorst in 1928, several remarkable block buildings were built during the same period. The blocks created by Erwin Anton Gutkind in particular combined the well established typology of the perimeter block with the avantgardist design of the *Neues Bauen*.[54] The most famous example is the Sonnenhof in Berlin-Lichtenberg, erected between 1925 and 1927 for the Siedlungsgesellschaft Stadt und Land (figs. 11, 12). Its 266 flats were arranged in up to five-storey buildings which strictly followed the street lines and thus created a large rectangular perimeter block with a green court. Within the court, Gutkind placed a nursery, and as the buildings followed the street, several shops could also be incorporated into the ground floor. Only the strictly horizontal layout with its stripes in red brick, grey concrete and white plaster as well as the cubic corners announced that this building was designed in a new era. Other examples for reformed urban blocks by Gutkind are the block in Berlin-Pankow (1925-27) and the block for the Siedlungsgesellschaft Gruppe Nord in Berlin-Reinickendorf (1927-29).

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[52] "daß der wilde Wirrwarr der Erker und Giebel, der Loggien und Türmchen und der verlogenen Ornamentik zu wohlgestalteten horizontalen Baugliedern der Häuserfront zusammengefaßt werden, und daß die architektonische Betonung großer Baukörper das Straßenbild beherrscht!" Bruno Möhring, "Das Laubenhaus. Ein Vorscglag zur Verbesserung großstädtischer Kleinwohnungen", in: *Der Städtebau*, vol. 14, 1917, pp. 132-137, pl. 73-75, quote p. 136.

[53] Theodor Goecke, "Der alte Westen Berlins", in: *Der Städtebau*, vol. 15, 1918, pp. 53-55, pl. 27-32.

[54] Rudolf Hierl, *Erwin Gutkind 1886-1968. Architektur als Stadtraumkunst*, Basel, Berlin and Boston: Birkhäuser 1992; Piergiacomo Bucciarelli, *Erwin Anton Gutkind 1886-1968. Un outsider nell'architettura berlinese negli anni venti,* Berlin: Vice Versa 1998. Cf. Leo Adler (ed.), *Neuzeitliche Mietshäuser und Siedlungen*, Berlin: Pollak 1931.

A less famous example which nevertheless shows the ordinary and unspectacular survival of the block idea is the so-called Gartenstadt Atlantic in Berlin-Wedding by Rudolf Fränkel (1927). In actual fact, these buildings in no way form an autonomous garden city, rather they are perfectly integrated into the continuing urban fabric of five-storey buildings, follow the curved streets and only provide green areas within the spacious courtyards. Once again, shops and a cinema were included, contributing to a lively metropolitan neighbourhood. The blocks at Innsbrucker Platz in Berlin-Schöneberg by Mebes & Emmerich (1922-28) also introduced dwellings into the existing urban fabric. The importance of street facades for urban spaces, this central topic from the pre-war urban design discourse, was again underlined in 1929 by Werner Hegemann in his book of images entitled *Facades of Buildings. Fronts of Old and Modern Business and Dwelling Houses.*[55] It was only through urban facades, clearly addressing the street and forming harmonious street walls, that dwellings were able to create urban spaces.

Although Berlin was the centre of housing reform in Germany, developments of reformed urban blocks were by no means restricted to the capital city. In Munich, reformist attempts originated with a more domestic design for middle-class tenements, especially in the Schwabing area. The combination of a public park and private dwellings was introduced by Otto Lasne in his design for a block in Friedenheim in 1904.[56] Five-storey buildings with huge pitched roofs surrounded a park towards the major streets, while the fourth side towards a minor lane remained open. In 1922, Karl Geissler and Ernst Nagel, Munich's city building councillor and city architect respectively, published an extensive article on the improvement of urban tenement blocks in *Der Städtebau*. They were convinced that the "sea of houses in the city" could not be substituted by "green estates".[57] Therefore, the only possible approach was to reform the existing system of tenement buildings by introducing spaces for air, light and recreation. As a result of their detailed inquiry into the economic viability of larger courtyards, they presented a model neighbourhood

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[55] Werner Hegemann, *Reihenhaus-Fassaden. Geschäfts- und Wohnhäuser aus alter und neuer Zeit*, Berlin: Wasmuth 1929.

[56] Otto Lasne, "Ausgestaltung des Anlagenplatzes an der Valpichlerstrasse", in: *Der Städtebau*, vol. 2, 1905, pp. 8-9, pl. 2-5.

[57] "Häusermeer der Stadt", "Siedlungsanlagen", Karl Geissler and Ernst Nagel, "Untersuchungen über eine freie, neuzeitliche Bebauung im Vergleiche zu der bisher üblichen in grösseren Städten", in: *Der Städtebau*, vol. 19, 1922, pp. 65-71, pl. 28-29, uqote p. 66.

consisting of blocks with large green courtyards – a well known pattern since the first attempts of the 1890s.

An interesting and paradigmatic case from the provinces is the competition for the buildings on an inner urban block in Magdeburg (1914) (fig. 13). This produced a broad range of possible formal answers to the question of an economically and hygienically viable arrangement of inner urban dwellings. The brief made it clear that the idea was to continue the existing dense urban fabric: "The entire block should be built with the maximum density 'in the manner of old town building'"[58] It also requested a variety of flats from three to six rooms as well as the inclusion of shops on the ground floor. The winning designers (first prize: Joh. Duvigneau, F. Stapff and W. Fischer, another first prize: Maximilian Worm, third prize: Oskar Höpffner) all subdivided the block with public internal streets and squares, one putting emphasis on the specific character of the interior, another on the uniformity of the entire neighbourhood. They all also included variations of enclosed and open courts. In addition, Professor C. Prévôt proposed a five-storey perimeter block with internal three-storey terraced houses according to Eberstadt and Möhring's design from the Greater Berlin competition. Apart from all the practical advantages, this arrangement would also be aesthetically preferable as all the components would exert a "clear spatial effect" as an "artistic necessity".[59] Again, sanitary and economic demands were combined with aesthetic objectives to achieve a high-quality metropolitan dwelling block.

The most comprehensive and continuous metropolitan housing programme in Germany was implemented in Hamburg under Fritz Schumacher, who was city architect between 1909 and 1933.[60] His metropolitan ideal did not promote isolated new settlements or satellites, but the continuous growth of a coherent urban fabric, not the dissolution of urban spaces with bar

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[58] "Der ganze Block sollte in der höchst zulässigen Ausnutzung nach 'altstädtischer Bauweise' bebaut werden." Peters, "Wettbewerb zur Bebauung eines städtischen Baublocks an der Königstrasse in Magdeburg", in: *Der Städtebau*, vol. 12, 1915, pp. 97-100, pl. 54-59, quote p. 97

[59] "klare Raumwirkung", "künstlerische Notwendigkeit", C. Prévôt, "Wettbewerb zur Erlangung von Entwürfen zur Bebauung eines Baublocks an der Königstrasse in Magdeburg", in: *Der Städtebau*, vol. 13, 1916, p. 44, pl. 29, quote p. 44.

[60] Hartmut Frank (ed.), *Fritz Schumacher. Reformkultur und Moderne*, Stuttgart: Hatje 1994. Hermann Hipp, "Fritz Schumachers Hamburg. Die reformierte Grossstadt", in: Vittorio Magnago Lampugnani and Romana Schneider (eds.), *Moderne Architektur in Deutschland 1900 bis 1950. Reform und Tradition*, Stuttgart: Hatje 1992, pp. 150-183. Hermann Hipp, *Wohnstadt Hamburg. Mietshäuser der zwanziger Jahre zwischen Inflation und*

buildings and floating green spaces, but a differentiation between public and semi-public spaces by building street facades and green courts. Furthermore, throughout his life, he interpreted the metropolis as a cultural artefact, not a functional machine.[61] His vision of a *Wohnstadt* (residential city) was deliberately metropolitan, aiming to create "uniform and harmonious neighbourhoods in the metropolis",[62] and at the same time specifically local, enhancing the sense of place with the use of brick as the traditional building material. He finally succeeded in constructing more than 65,000 flats according to this urban philosophy.[63]

Initial plans clearly show the influence of the Greater Berlin competition. In his designs for blocks in Hamburg-Horn in 1911, Schumacher experimented with higher perimeter buildings which encircled lower internal buildings. Another study from 1913 explored the possibilities of public parks passing through several urban blocks.[64] His ideas came to fruition in a modified form in the Dulsberg area of Hamburg-Barmbek, planned between 1916 and 1919 and built from 1919 until 1923 (fig. 14). A central park ribbon was accompanied by three-storey blocks with public courts, providing maximum public green space, light and air in a still densely built urban fabric.[65] Another typical residential quarter with reformed blocks and a central public square emerged at Hamburg-Veddel (1926-27). The Jarrestadt in Hamburg-Winterhude (1927-29), designed by several architects, represents the most modern and iconic example based on Schumacher's "residential city" ideal. Although most of the buildings were designed in bar form, they still carefully followed the curved streets and thus created a perceivable urban space. The quarter was arranged around a central public square whose adjacent buildings were designed by Karl Schneider.

The collective green space within the reformed urban blocks not only served practical sanitary functions, but also enabled social activities. This broader social purpose was expressed on a flyer

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Weltwirtschaftskrise, Hamburg: Christians 1982; Gert Kähler, *Wohnung und Stadt. Hamburg, Frankfurt, Wien. Modelle sozialen Wohnens in den zwanziger Jahren*, Braunschweig: Vieweg 1985.

[61] Fritz Schumacher, *Probleme der Großstadt*, Leipzig: Seemann 1940.

[62] "einheitliche und harmonische Großstadtquartiere", Fritz Schumacher, *Das Werden einer Wohnstadt. Bilder aus dem neuen Hamburg*, Hamburg: Westermann 1932, p. 37.

[63] Hermann Hipp, "Fritz Schumachers Hamburg. Die reformierte Grossstadt", in: Vittorio Magnago Lampugnani and Romana Schneider (eds.), *Moderne Architektur in Deutschland 1900 bis 1950. Reform und Tradition*, Stuttgart: Hatje 1992, pp. 150-183, p. 163.

[64] Fritz Schumacher, *Die Kleinwohnung. Studien zur Wohnungsfrage*, Leipzig: Quelle & Meyer 1917, ill. 21.

[65] Fritz Schumacher, "Die Neugestaltung eines Bebauungsplanes", in: *Der Städtebau*, vol. 20, 1925, pp. 132-134.

for a children's party within the courtyard of a dwelling block in Hamburg around 1930: "The new way of building, where large residential blocks encircle a common garden court, is not simply the private taste of the respective architects, but an expression of the social will of our time which strives for collectivity and community."[66] The reformed urban block embodied the social ideal of active communities within the city.

This orientation changed considerably during the Third Reich. Metropolitan culture no longer served as an ideal for housing. In its place, the single family house was propagated as an appropriate expression of the *Blut und Boden* ideology. This new direction was critically reported in the proceedings of the International Exhibition on Urbanism and Housing in Berlin from 1931 which only were published in 1935 by Bruno Schwan. Even if they were published under the Nationalsocialist regime, they still managed to display an international selection of housing examples. Here, Schwan stated that large multi-storey developments were no longer being promoted, noting that "a reversion from this building method and a strong furtherance of the own homestead are noticeable in Germany, which has been lively supported by the National Socialist Government."[67] Nevertheless, the reformed urban block was not totally abandoned. It was used both for the redevelopment of inner urban areas such as Hamburg's Gängeviertel (1934-37) and Kassel's inner city (1934),[68] and for new central urban developments such as the quarter at Grazer Damm in Berlin-Schöneberg (1938-40) by Hugo Virchow, Richard Pardon, Carl Cramer and Ernst Danneberg. Despite the fact that this typology was used under the National Socialists, it remained the invention and the property of social and urban reformers of the turn of the century.

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[66] "Die neue Bauweise, bei der große Wohnblocks einen gemeinsamen Gartenhof umschließen, ist nicht einfach ein privater Geschmack der jeweiligen Architekten, sondern Ausdruck des zum Kollektiven, zur Gemeinschaft drängenden sozialen Willens unserer Zeit." Gert Kähler, "Nicht nur Neues Bauen! Stadtbau, Wohnung, Architektur", in: Gert Kähler (ed.), *Geschichte des Wohnens, vol. 4, 1918-1945. Reform – Reaktion – Zerstörung*, Stuttgart: DVA 2000, pp. 303-452, quote p. 336.

[67] Bruno Schwan, "Germany. Housing", in: Bruno Schwan, *Städtebau und Wohnungswesen der Welt. Town Planning and Housing throughout the World. L'urbanisme et l'habitation dans tous les pays*, Berlin: Wasmuth 1935, pp. 130-134, quote p. 133.

[68] Gert Kähler, "Nicht nur Neues Bauen! Stadtbau, Wohnung, Architektur", in: Gert Kähler (ed.), *Geschichte des Wohnens, vol. 4, 1918-1945. Reform – Reaktion – Zerstörung*, Stuttgart: DVA 2000, pp. 303-452, see p. 414. Cf. Bruno Schwan, *Städtebau und Wohnungswesen der Welt. Town Planning and Housing throughout the World. L'urbanisme et l'habitation dans tous les pays*, Berlin: Wasmuth 1935, p. 121.

2. Vienna and Central and Eastern Europe

Continuing its tradition of groundbreaking competitions such as those for the city extension plan in 1858 and for the comprehensive city plan in 1892, Vienna was again the first city to establish a competition for workers' housing as reformed urban blocks. In 1896, the Emperor Franz Joseph I. Jubilee Foundation, a philanthropic institution, asked for proposals to erect affordable sanitary dwellings. The winning architects Theodor Bach and Leopold Simony proposed a cluster of five perimeter blocks of which two were finally constructed by 1901, namely Lobmeyrhof and Stiftungshof (figs. 15, 16).[69] The 392 flats of the Jubiläumshäuser were arranged around large interior courtyards with playgrounds and gardens, picking up on the *Hof* tradition of local Baroque suburban housing blocks and institutional buildings. The facades also included references to Baroque townhouses. By introducing a picturesque arrangement of gables and an informal subdivision into house units, the architects aimed to achieve a new sense of *Heimat* within the metropolis, comparable to Messel's attempts in Berlin. These blocks were not conceived as autonomous units, rather they fitted into the urban fabric with facades which strictly followed the building lines and corner shops like any other normal commercial development. The real improvement, the large green courts in the interior of the block, was hidden.

New typologies were also tested for bourgeois apartment buildings. As the usual procedure of speculative building on urban lots did not allow for the comprehensive design of the block, the *Straßenhof* (street court, a courtyard which was open towards the street) was invented to secure both better sanitary conditions and a larger noble street frontage. Examples of these often heavily decorated luxury tenements include Linke Wienzeile 4 by Leopold Fuchs (1909), Köstlergasse 6-8 by Carl Bittmann (1910), Rochushof by Heinrich Kestel (1910) or Lehargasse 9-11 by Max Fabiani (1912-13). This typology was enlarged on the scale of an enclosed urban square at the Rudolf-von-Alt-Platz, realised in the period between 1906 and 1911 by several architects.[70] With the tenement estate at Wehlistraße for tramway workers by the municipal building office (1913), the *Straßenhof* became a principle for structuring a larger housing unit of 330 flats. Resembling

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[69] Akos Moravanszky, *Competing Visions. Aesthetic Invention and Social Imagination in Central European Architecture 1867-1918*, Cambridge, Mass.: MIT Press 1998, p. 411. Wolfgang Hösl and Gottfried Pirhofer, *Wohnen in Wien 1848-1938. Sudien zur Konstitution des Massenwohnens*, Wien: Deuticke 1988, pp. 83-84.

Mebes' Horstweg in Berlin, two courts towards the street formed a sequence which could be regarded as a new typology in the sense of Hénard's *boulevard à redans*.[71]

The large garden court became theorised by Camillo Sitte in his famous article on "Metropolitan Green" in 1900. Arguing against the fashionable model of the English square, where the green was surrounded by streets, he demanded: "The sanitary green should not be located within the dust and noise of the streets, but within the safe interior of large perimeter blocks."[72] According to good examples of historic cities and their suburbs, recreational green should be arranged in courtyards which could then even be used for other functions such as playgrounds, sporting grounds and even markets. What Sitte proposed here was nothing less than opening the formerly private ground of the urban block to the public – a strategy which later became important for the large *Höfe* of Red Vienna. Sitte himself had already proposed such multifunctional courtyards in his plans for Mährisch-Ostrau, Teschen and Olmütz.

If Sitte reconsidered the urban housing block in terms of improving public spaces, his Viennese opponent in urban design Otto Wagner took quite a different view. For him, the urban tenement was the basic unit of the modern metropolis which he clearly favoured against suburban detached houses. In his lecture on "The Metropolis" at the Urban Design Conference in New York in 1910, Wagner presented the urban tenement as the only appropriate dwelling typology for modern life: "The longed-for detached house in the still more longed-for garden city can never satisfy the popular need, since as a result of the pressure of economy in living expenses, of the increase and decrease in the size of families, of change of occupation and position in life, there must be constant shifting and change in the desires of the masses. The needs which arise from such changing conditions can be satisfied only by rented apartment dwellings, and never by individual houses."[73]

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[70] Friedrich Achleitner, *Österreichische Architektur im 20. Jahrhundert. Ein Führer in vier Bänden, vol. III/1, Wien, 1.-12. Bezirk*, Salzburg: Residenz Verlag 1990, pp. 124-125, 129-130, 185, 189-190.

[71] Friedrich Achleitner, *Österreichische Architektur im 20. Jahrhundert. Ein Führer in vier Bänden, vol. III/1, Wien, 1.-12. Bezirk*, Salzburg: Residenz Verlag 1990, pp. 101-102.

[72] "Das sanitäre Grün gehört nicht mitten in den Staub und Lärm der Straßen, sondern in das geschützte Innere großer, ringsherum verbauter Baublöcke." Camillo Sitte, "Großstadt-Grün" (1900), in: Camillo Sitte, *Der Städte-Bau nach seinen künstlerischen Grundsätzen*, ed. by Christiane Crasemann Collins and Klaus Semsroth, Wien: Böhlau 2003, p. 247.

[73] Otto Wagner, "The Development of a Great City", in: *Architectural Record*, vol 31, 1912, pp. 485-500, quote p. 498.

For him, the ideal metropolitan neighbourhood consisted of uniform residential blocks interspersed with monumental public buildings arranged along a central axis of green spaces. Wagner shared Berlin-based Scheffler's view that the identical needs of the masses would result in a uniform townscape: "Our democracy, into which the general public is pressed with the call for inexpensive and healthy housing for a more economical lifestyle, will result in a growing uniformity of residential buildings."[74] This deliberately urban, even metropolitan approach to housing also informed Wagner's practice. As a teacher at the Academy, he asked for an urban apartment house including commercial spaces as a first year assignment, and during his career he designed and constructed several apartment houses, of which the structures in Neustiftgasse and Döblergasse in Vienna came closest to his ideal of uniformity.

While Sitte's emphasis had been on spacious courtyards and Wagner's on urban facades, both aspects were combined in one of the most comprehensive and coherent urban social housing programmes of the 1920s, the municipal building programme of the Social Democratic Party in Vienna (1923-34). The *Gemeindebauten*, mostly realised in the *Hof* typology, attempted to combine a dense urban situation with the advantages of green spaces and social institutions.[75] Although there had been strong tendencies towards green settlements directly after the war, the city officials fostered a metropolitan approach for Social Democratic housing from the beginning, as Gustav Scheu, advisor on housing issues to the Social Democratic Party, put it in 1920: "the question is not metropolis or town [*Grossstadt oder Kleinstadt*]; rather we start from the position that Vienna will continue to exist as a metropolis, but one that can also develop in a healthy manner."[76]

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[74] "Unser demokratisches Wesen, in welches die Allgemeinheit mit dem Schrei nach billigen und gesunden Wohnungen und mit der erzwungenen Ökonomie der Lebensweise eingepresst wird, hat die Uniformität unserer Wohnhäuser zur Folge." Otto Wagner, *Die Grossstadt. Eine Studie über diese*, Vienna: Anton Schroll 1911, pp. 3-4; reprinted in: Otto Antonia Graf, *Otto Wagner. Das Werk des Architekten*, 2 vol., Wien, Köln and Graz 1985, vol. 2, p. 641.

[75] Manfredo Tafuri (ed.), *Vienna rossa. La politica residenziale nella Vienna socialista*, Milan: Electa 1980; Hans Hautmann, Rudolf Hautmann, *Die Gemeindebauten des Roten Wien 1919-1934*, Vienna: Schönbrunn-Verlag 1980; Helmut Weihsmann, *Das Rote Wien. Sozialdemokratische Architektur und Kommunalpolitik 1919-1934*, Vienna: Promedia 1985; Gert Kähler, *Wohnung und Stadt. Hamburg, Frankfurt, Wien. Modelle sozialen Wohnens in den zwanziger Jahren*, Braunschweig: Vieweg 1985; Eve Blau, *The Architecture of Red Vienna 1919-1934*, Cambridge, Mass.: MIT Press 1999.

[76] *Arbeiter-Zeitung*, 20 February 1920, p. 6; *Amtsblatt der Stadt Wien*, 10 March 1920, p. 676; quoted after: Eve Blau, *The Architecture of Red Vienna 1919-1934*, Cambridge, Mass.: MIT Press 1999, p. 93.

After a few initial experiments with garden suburbs, the municipality soon abandoned its low density approach, especially because of economic and political reasons. As the municipality had to acquire most of the land where it wanted to build, it was not feasible to only use that land for low density housing. This economic condition became even more compelling due to the specific administrative situation. Due to the fact that the municipality could only acquire land within its borders, it was simply not possible to carry out the large-scale expansion which would have been necessary with low density developments. Even leaders of the settlement movement such as Otto Neurath conceded in 1924 that "it would not be possible, given the historical conditions, to meet the need for housing by building settlements [*Siedlungen*]. There is not enough land; [...] The question at the moment in Vienna is not *whether* to build apartment blocks, but rather where and in what form."[77]

Dense urban housing which resulted from these practical necessities was soon also justified by a specific socialist ideology. As Karl Seitz, who had succeeded Jacob Reumann as mayor in 1923, declared in 1924 at the opening of one of the new housing complexes that urban court buildings were ideal for social education: "Now begins the new building period, in which we will no longer construct small single buildings with narrow courts, but large communal housing complexes, in which the people will live as a mass together, and yet each person, according to his individuality, can also live a particular and private life. The universal need for recreation and relaxation will be provided for in beautiful parks for the use of all. We want to educate our young not as individualists, outsiders, loners. Rather they should be raised communally and be brought up as socialized individuals."[78]

The figures say it all. Up until 1934, the city council constructed 10,500 dwellings in *Siedlungen* (suburban settlements) as compared to 63,000 flats in *Höfen* (urban perimeter blocks). The general philosophy of these blocks was to follow the existing city plan from 1894, to fit into the urban fabric, to respect the public streets, to mix dwellings with a variety of facilities, to express

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[77] Otto Neurath, "Städtebau und Proletariat", in: *Der Kampf*, vol. 17, 1924, p. 237; quoted after: Eve Blau, *The Architecture of Red Vienna 1919-1934*, Cambridge, Mass.: MIT Press 1999, p. 158.
[78] *Arbeiter-Zeitung*, 17 June 1924, p. 8; quoted after: Eve Blau, *The Architecture of Red Vienna 1919-1934*, Cambridge, Mass.: MIT Press 1999, p. 156.

metropolitan life, but also to form an alternative model, to introduce new public green spaces, to subvert the capitalist city by socialist neighbourhoods – not by destruction but by improvement. The city officials identified four different types of sites for the new dwelling blocks: "a complete city block [...] bordered on all sides by existing streets. As a rule the type which emerged was a simple perimeter block [*Randverbauung*] with spacious courtyards in the interior."[79] They also mentioned *Lückenverbauung* (infill building), *Grosswohnanlage* (large building complex) and *Wohnviertel* (residential quarter). This differentiated approach shows that the city was accepted as a complex unit which had to be dealt with in an appropriate manner.

However, the deliberately metropolitan results of the housing programme could not be understood without considering the cultural influence of the *Wagnerschule*. Most of the architects of Red Vienna had studied at Wagner's master class or even worked in his office and thus were all infiltrated by his metropolitan building ideology. Under this influence, the first *Hof* emerged gradually and set the standard for all future buildings. The Metzleinstalerhof started with a building by Robert Kalesa (first design in 1916, redesigned in 1919 and completed in 1921) in the Margarethengürtel, which combined several lots into a large uniform tenement building. Only after the city had acquired the remaining lots of this block, in 1922-23 Hubert Gessner – pupil of Wagner and closely related to the Social Democratic Party since the turn of the century – completed the complex as the first *Hof* building of Red Vienna (fig. 17). A six-storey perimeter block with 252 flats now comprised a large green public garden court, accessible through monumental archways. This new concept changed the metropolis considerably. It introduced a public square into the private block and thus blurred the borders between public and private – borders which no longer existed anyway as the "private" block was "publicly" owned by the municipality. Nevertheless, it did not destroy the clear spatial definition of the city. Both surrounding streets and internal courtyard were strictly defined by the buildings and its carefully designed facades which separated the enlarged public sphere from the private dwellings.

The first *Gemeindebau* which was entirely conceived as a *Hof* was the Fuchsenfeldhof (1922-25) by Heinrich Schmid and Hermann Aichinger, both also Wagner pupils (figs. 18, 19). It strictly

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[79] *Verwaltungsbericht 1923-24*, p. 1224; quoted after: Eve Blau, *The Architecture of Red Vienna 1919-1934*, Cambridge, Mass.: MIT Press 1999, p. 252.

followed the street lines and offered internally a sequence of public courts which could be entered through monumental archways. The hybridity of the design, especially the external monumentality and the public courts, surprised contemporary visitors: "When one looks toward the Fuchsenfeldhof [...] one stares, astonished, and asks oneself in wonder: is this the enormous palace of a millionaire, is it a castle, or a museum or what else could it be? [...] On striding through the gateway, a new surprise follows. One stands before an overwhelming garden courtyard, and is again thrown into confusion; Is this the jousting court of a fortified castle, or the market square of a medieval town, framed by houses of uniform height?"[80] This reaction demonstrates two things. On the one hand, the new urban block introduced a new quality into the city by incorporating public urban elements (such as the square) into the private house. On the other hand, the block does it by using well established typologies and thus being clearly recognisable as a distinctive building type and not an abstract structure, complex, cluster or whatever. This tendency of becoming an entire quarter is reinforced by the multifunctionality of the block. In addition to its 479 flats, it also contained several shops and workshops, two nurseries, two laundries and a reading room.

The most iconic and monumental perimeter block of this period was the Reumannhof (1924) next to the Metzleinstalerhof, again designed by Gessner (figs. 20, 21). Gessner subdivided the block into three parts, two enclosed courts at the edges and an open court in the centre. The entire block was designed in strict symmetry, the central *corps de logis* towered above the complex, while the open court resembled a *court d'honneur.* All these elements strongly contributed to the impression of a real workers' palace. Once again, the block was conceived as a multifunctional unit, comprising not only 485 flats, but also 22 stores towards the main street, a nursery and a laundry.

The second typology mentioned by the municipality was urban infill. Numerous buildings were erected, most of them in an unspectacular manner. They continued the old tradition of private urban houses within the block, but quite often tried to create enlarged green courts.

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[80] *Arbeiter-Zeitung*, 30 October 1924, p. 6; quoted after: Eve Blau, *The Architecture of Red Vienna 1919-1934*, Cambridge, Mass.: MIT Press 1999, p. 237-238.

The third typology was more spectacular. These large building complexes comprised several urban blocks and thus created superblocks. Here, the relationship between the building and the city became precarious. The building became more important than the city and risked making parts of the public realm private. In fact, one of the first superblocks, the Winarskyhof by Peter Behrens, Josef Frank, Josef Hoffmann, Oskar Strnad and Oskar Wlach (1924-25) clearly displays some of the resultant problems (figs. 22, 23). It was conceived as a superblock covering two blocks and consisting of two perimeter blocks, one located within the other. A public street crossed the complex and was bridged four times by the buildings. Strnad's dramatic design of the facade in particular managed to inverse the problem. While in reality the building had conquered the street, it looked as if the street had violently mutilated the building. However, the spatial results could not be solved convincingly. While fitting into the surroundings by following the lines of the adjacent streets, the block opposed the city of which it itself was a part by turning its back on the central crossing street. The resulting problems can best be observed in Behrens' central block. Its internal courtyard creates one large garden space, but as it is divided by the street and separated from the street by high fences, it loses its unifying quality and its potentially public character. From the building it might be understood as an internal garden court, but from the street it would be seen as a left-over green space between bars of buildings – introducing the disadvantages of avantgardist *Zeilenbau* into the block structure of Vienna.

These problems were solved in a more subtle manner by Schmid and Aichinger at the Rabenhof (1925-28), another superblock with 1000 flats and spaces for many other uses, covering several blocks (fig. 24). Here, the building – although it was conceived as a continuum – was arranged in an informal way, creating a variety of internal courts, open courts and public squares. Although the building bridged public streets several times, these encroachments finally contributed to the quality of the public realm in creating enclosed public spaces. This strategy fundamentally changed the quality of the urban block. Both building and space became inseparably interconnected – a single building meandered across the site and a single space wound its way through the building. It nevertheless retained a distinct urban character by using well established urban typologies. All the spaces can be understood as streets, courts, forecourts, corners or passageways and thus create no abstract opposition to the metropolis. While forming an alternative statement, the superblock was intricately interwoven with the historic city. This

quality was promoted by Werner Hegemann in 1937 when he wrote in praise of the Viennese *Höfe*, saying they were "typically urban in character [...]. Note, however, the pleasing variety of detail in each group, and the ingenious way in which the plans of the blocks are related to existing streets and open spaces."[81]

The fourth type was the entirely new neighbourhood. It was in this category that the most monumental creations of Red Vienna emerged, with the Karl-Marx-Hof by Karl Ehn (1927-30) as its ultimate icon. Ehn's solution for the site, which included several blocks and was more than a kilometre long, was as simple as it was effective - he simply enlarged the typology of the Reumannhof. However, this expansion of scale also resulted in a change in qualities. The building was no longer seen as a building but as an entire city (especially as the design introduced urban elements such as towers and arches, resembling old city walls and gates), and courtyards were no longer regarded as courts but as public squares (especially as they are crossed by public streets). Nevertheless, this subversions happens within the existing system of the city, adding a new quality without destroying it.

The Karl-Marx-Hof became the flagship of the Viennese building programme – not only locally with the political opposition as "Red Bastion", but also internationally with architects and planners. Soon after its completion, the RIBA Journal reported on the Karl-Marx-Hof, praising its urban attitude in design as well as in function. It was reported that provisions "include two kindergarten, two washhouses, each with ample bathing accommodation, a school, a dental clinic, a library, a youth's hostel, a maternity clinic and a health insurance office, a post office, a chemist's shop and over twenty other business premises. This estate, with nearly 1,400 flats and over 5,000 residents, has the facilities of a small town."[82]

The Engelsplatz-Hof by Rudolf Perco (1929-33) was planned as the largest *Gemeindebau* comprising 2,200 flats, but due to the political changes it became the swan song of Red Vienna (fig. 25). When the Austro-Fascists came to power, it remained unfinished with "only" 1,500 flats

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[81] Werner Hegemann, *City Planning. Housing, vol. 3, A Graphic Review of Civic Art 1922-1937*, New York: Architectural Book Publishing Company 1938, p. 93.
[82] Donald Brooke, "The Karl Marx Hof, Vienna", in: *Journal of the Royal Institute of British Architects*, vol. 38, 3rd series, 1931, pp. 671-677, quote p. 674.

constructed.[83] This was a structure which took metropolitan monumentality to an unprecedented level. The overall complex with its strict symmetry in the central parts was enlarged to seven storeys and designed in a hitherto unseen uniform manner – blowing Wagner's minimalist design of the Neustiftgasse tenement up to neighbourhood scale. The result is conflicting. With its strict symmetry and its established typology, the complex can still be perceived as a unit which creates distinct urban spaces. However, the uniformity and its sheer size alone link it to avantgardist large-scale developments which aimed at dissolving the traditional city. Nevertheless, as it stands it must be understood as the ultimate synthesis of Wagner's rational approach and Sitte's sensual approach. It offers enclosed public squares within the block and monumental uniform facades towards the metropolitan streets, combining Wagner's *Grossstadt* with Sitte's enclosed and protected squares. One further step in scale and both protagonists' urban qualities would be lost.

Other large cities in the Hapsburg Empire also struggled with the improvement of housing conditions. In Prague, two apartment blocks in Na valech in Prague Hradcaby by Frantisek Velich and Jan Zák (1912-14) introduced the perimeter block with green courtyards and playgrounds.[84] The policy of housing reform continued after independence. Rudolf Hrabe designed an apartment block in U prohonu in Prague Holesovice (1919-22) which experimented with open courts oriented towards the street.[85] But, as he closed off these courts at ground level with one-storey workshops, he was able to keep the multifunctional public character of the urban street. A growth in scale is documented by the seven-storey apartment block at Slezská in Prague Vinohrady by Bohumil Sláma, Jaroslav Pelc and Václav Vejrych (1920-21).[86] Here, the buildings are arranged around a public square. Finally, the Greater Prague Act in 1921 encouraged several extension plans, most of them operating with reformed blocks such as Antonin Engel's plan for Dejvice (1921-24). Budapest set up a municipal building programme in the 1920s which usually

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[83] Ursula Prokop, *Rudolf Perco 1884-1942. Von der Architektur des Roten Wien zur NS-Megalomanie*, Vienna: Böhlau 2001, 158-187.

[84] Rostislav Svacha, *The Architecture of New Prague 1895-1945*, Cambridge, MA, and London: MIT Press 1995, p. 90-91.

[85] Rostislav Svacha, *The Architecture of New Prague 1895-1945*, Cambridge, MA, and London: MIT Press 1995, p. 158, 162

[86] Rostislav Svacha, *The Architecture of New Prague 1895-1945*, Cambridge, MA, and London: MIT Press 1995, p. 158-159.

operated with four- to six-storey blocks. A seven-storey block by Jenö Lechner with a large courtyard and balcony access was published in *Der Städtebau* in 1927.[87]

The development of communal housing in Zurich bore close resemblance to German examples. The first project, the Wohnsiedlung Limmat I by F. W. Fissler (1908-09), consisted of three blocks with garden courtyards and picturesque facades in the *Heimatstil*, comparable to Messel's houses in Berlin or the Jubilee Houses in Vienna from a decade before.[88] The blocks around the Röntgenplatz by E. Hess, Leuenberger and Giumini (1915-27) with their spacious courts and their arrangement around a public square can be compared to examples from the Greater Berlin Competition, namely Jansen's proposals.[89] Bischoff and Weideli's uniform blocks of the Wohnsiedlung Zurlinden (1919) with their private internal courts and a public park show a similar approach of organising private and public green and of architectural uniformity to Schumacher's projects in Hamburg.[90] Finally, the Wohnsiedlung Bullingerhof by Kündig and Oetiker (1931) offered an arrangement of German *Zeilenbau* in a style which was compatible with the city. The bars were located at all four edges of a large urban block, thus creating Zurich's largest perimeter block.[91] The open corners allowed the park in the centre to become a public green. Although they weakened the urban fabric at the most sensitive points – at the corners of the block – the long facades, which strictly followed the street line, still secured the prevalence of urban space over purely sanitary considerations.

In Geneva, the housing complexes by Maurice Braillard demonstrated a more monumental approach comparable to Viennese courts.[92] The original plans for Les Squares de Montchoisy

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[87] Albert Heymann, "Ungarische Wohnungsfürsorge", in: *Der Städtebau*, vol. 22, 1927, pp. 122-124.

[88] Michael Koch, Mathias Somandin, Christian Süsstrunk, *Kommunaler und genossenschaftlicher Wohnungsbau in Zürich. Ein Inventar der durch die Stadt geförderten Wohnbauten 1907-1989*, Zurich: Finanzamt und Bauamt Zürich 1990, pp. 36-37

[89] Michael Koch, Mathias Somandin, Christian Süsstrunk, *Kommunaler und genossenschaftlicher Wohnungsbau in Zürich. Ein Inventar der durch die Stadt geförderten Wohnbauten 1907-1989*, Zurich: Finanzamt und Bauamt Zürich 1990, pp. 155, 157.

[90] Michael Koch, Mathias Somandin, Christian Süsstrunk, *Kommunaler und genossenschaftlicher Wohnungsbau in Zürich. Ein Inventar der durch die Stadt geförderten Wohnbauten 1907-1989*, Zurich: Finanzamt und Bauamt Zürich 1990, pp. 32, 108.

[91] Michael Koch, Mathias Somandin, Christian Süsstrunk, *Kommunaler und genossenschaftlicher Wohnungsbau in Zürich. Ein Inventar der durch die Stadt geförderten Wohnbauten 1907-1989*, Zurich: Finanzamt und Bauamt Zürich 1990, pp. 33, 146.

[92] Marina Massaglia Ait-Ahmed, *Maurice Braillard. Architecte et urbaniste*, Geneva: Fondation Braillard Architectes 1991; Ursula Paravicini, Pascal Amphoux (eds.), *Maurice Braillard. Pionnier suisse de l'architecture*

(1926-31) consisted of four perimeter blocks with internal public green squares. The one and a half blocks actually realised comprised four unconnected eight-storey bars. But as these bars were symmetrically arranged in a way that they clearly defined both internal and external spaces of the block, as they were on a metropolitan scale, as they were designed with distinct urban facades both to the streets and the courts and as they included shops, they were able to create a dense inner urban neighbourhood while respecting all the modern sanitary requirements. Even more iconic was Braillard's La Maison Ronde (1927-30), an eight-storey semicircular block overlooking the city. Here the fortress-like monumentality was increased by bow-windows which adorned the facade as turrets. Similar to the Karl-Marx-Hof in Vienna, traditional architectural elements were used as images to ennoble and monumentalise the ordinary task of urban housing.

A survey of European residential blocks would be incomplete without examples from Russia. St. Petersburg as the capital city was the place of a flourishing urban culture and displayed early examples of reformed urban blocks. Fedor Lidval realised an apartment building with a garden court opening towards the street in Kamennoostrovskii Prospekt (1899-1904).[93] Vladimir Shchuko put the emphasis on the design of a monumental facade in his apartment building in the same street (1910-11). He decorated his six-storey building with a colossal order of semi-columns which covered five storeys. This example was later picked up by Ivan Zholtovskii in his famous apartment building in Mokhovaia Street in Moscow (1934) which referred even more directly to Palladio's Loggia del Capitaniato. This way of using classical motifs to design urban housing blocks in a new scale was to become general practice in Moscow under Stalin after the comprehensive plan of 1935.[94] The new enlarged urban boulevards were followed by highly decorated facades which covered the new urban apartment blocks of up to ten storeys. With this revival of the metropolitan urban block under the banner of Socialist Realism, this typology survived until the 1950s, when it was finally abandoned after Stalin's death.

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moderne 1879-1965, Geneva: Fondation Braillard Architectes 1993; Elena Cogato Lanza, *Maurice Braillard et ses urbanistes: puissance visionnaire et stratégies de gestion urbaine: Genève 1929-1936*, Geneva: Editions Slatkine, 2003.

[93] William Craft Brumfield, "Building for Comfort and Profit. The New Apartment House", in: William Craft Brumfield and Blair A. Ruble (eds.), *Russian Housing in the Modern Age. Design and Social History*, New York: Woodrow Wilson Center Press, 1993, pp. 55-84, fig. p. 59.

3. Amsterdam and the Netherlands

In the Netherlands, housing policy followed a deliberately urban approach up to the 1930s. New neighbourhoods, especially social housing after the famous *Woningwet* (Housing Law) was passed in 1901, were mostly conceived as continuous extensions of an overall coherent urban fabric. This reformist approach was underlined by the use of traditional materials such as brick and traditional elements like gables, but at the same time balanced by the introduction of astonishing innovations in typology and style.

In his programmatic lecture on "Architecture and Impressionism", published in 1894, the leading modern Dutch architect Hendrik Petrus Berlage underlined the role of urban dwellings for the new style he envisioned. This new impressionist architecture – creating characteristic forms out of plane facades with reduced ornamentation according to modern capitalist conditions – would first be implemented in urban tenements: "With powerful beauty and simple greatness, totally adequate to its character, a block of apartment houses could emerge, impressionistically angular, outlined with simple, irregular details, such as the various entrance doors."[95] This short passage alone shows the dialectic between overall simplicity and picturesqueness in detail which would subsequently become characteristic for later projects of the Amsterdam School. Berlage exemplified his vision in 1895-96 in a design for a 270-metre long tenement block with luxury flats at the Museumterreinen in Amsterdam (fig. 26). This block, whose rhythm was no longer created by ornamentation but by the characteristic arrangement of architectural elements, contained not only two green interior courtyards and a central public passageway, but also a public square with a café-restaurant and shops, arranged as a semi-closed space according to Camillo Sitte's ideas.[96]

Apart from all the social and sanitary issues, the focus of Amsterdam's housing programme was on the urban aspect of dwellings, namely the facade. As early as 1898, a *Schoonheidscommissie*

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[94] Peter Noever (ed.), *Tyrannei des Schönen. Architektur der Stalin-Zeit*, Munich: Prestel 1994.
[95] Hendrik Petrus Berlage, 'Bouwkunst en impressionisme', in: *Architectura*, vol. 2, 1894, no. 22, pp. 93-95; No. 23, 98-100; No. 24, 105 -106; No. 25, 109-110; quoted after: Vittorio Magnago Lampugnani, Ruth Hanisch, Ulrich Maximilian Schumann, Wolfgang Sonne (eds.), *Architekturtheorie 20. Jahrhundert. Positionen, Programme, Manifeste*, Ostfildern-Ruit: Hatje Cantz 2004, p. 18.
[96] Sergio Polano (ed.), *Hendrik Petrus Berlage. Complete Works*, Milan: Electa 1988, pp. 140-141.

(Committee of Aesthetics) was set up to review the facades of housing proposals on municipally owned ground. This committee underwent reorganisation in 1915 and 1924 and was given enhanced responsibilities.[97] The committee's major issue was to ensure the aesthetic harmony of the new emerging neighbourhoods. Although there was a clear preference for the more picturesque approaches by architects of the Amsterdam School, the Committee of Aesthetics never argued in stylistic terms, but tried to justify the quality of design mostly by the consistency of the neighbourhood. In this respect, urban aesthetics in Amsterdam was fully in accordance with international attempts to achieve uniformity in big cities as in Berlin (Scheffler), Vienna (Wagner) and Chicago (Burnham). Berlage underlined this ideal of a uniform metropolis in his famous lecture on housing at the 1918 Housing Congress in Amsterdam. While putting the emphasis on psychological and aesthetic aspects of housing design, he acknowledged a certain necessity for individualisation, but stated that regularity and urban coherence had to come first.[98]

This tradition of emphasising the urban aspects of housing – the facade and the street image – created not only some of the most outstanding and original examples of urban blocks, but also the most coherent and beautiful. In other words, these examples represent the most successful urban extensions in the 20th Century. In particular, the typology of a superblock consisting of higher metropolitan buildings at its edges and lower rural buildings in the centre was used extensively in Amsterdam. Next to Michel de Klerk's three famous blocks for the Eigen Haard housing association in Spaarndammerbuurt (1913-14, 1914-18, 1917-21) which set a new standard in creating urban identity by individual design,[99] Johan Melchior van der Mey arranged the layout of the Zaanhof (1913-20) (figs. 27-29). This large block was surrounded with metropolitan five-storey buildings by Tjeerd Kuipers and A. U. Ingwersen for Patrimonium, while the inner part with three-storey gabled houses by H. J. M. Walenkamp for Het Westen, arranged around an

[97] Nancy Stieber, *Housing Design and Society in Amsterdam. Reconfiguring Urban Order and Identity 1900-1920*, Chicago: University of Chicago Press 1998, pp. 68, 157-257. Cf. Helen Searing, *Housing in Holland and the Amsterdam School*, PhD Yale University 1971; Helen Searing, "With Red Flags Flying. Housing in Amsterdam 1915-1923", in: Henry A. Millon and Linda Nochlin, *Art and Architecture in the Service of Politics*, Cambridge: MIT Press 1978, pp. 230-269.

[98] Hendrik Petrus Berlage, "Over Normalisatie in de Uitvoering van de Woningbouw", in: *Normalisatie in Woningbouw*, Rotterdam: Brusse 1918, pp. 21-50. Cf. H. P. Berlage, A. Keppler, W. Kromhout, J. Wils, *Arbeiderswoningen in Nederland. Workmen's Dwellings in Holland*, Rotterdam: Brusse 1921.

[99] Maristella Casciato and Wim de Wit, *Le case Eigen Haard di De Klerk 1913-1921*, Rome: Officina 1984. Manfred Bock, Sigrid Johannisse, Vladimir Stissi, *Michel de Klerk. Architect and Artist of the Amsterdam School, 1884-1923*, Rotterdam: NAI Publishers 1997, pp. 57-91.

informal public green, evoked the image of a village or historic small town.[100] This was the most direct realisation of Möhring and Eberstadt's proposal from the Greater Berlin competition in 1910, but also picked up on local historic models such as the Beginenhof in Amsterdam. Next to this block, Karel Petrus Cornelis de Bazel designed the Polanenhof for the Municipal Housing Authority (1916-23).[101] The model was varied in this case - the block was no longer split into two opposing realms, rather the inner ring of buildings around a public green retained the same height as the outer ring, emphasising metropolitan homogeneity. Moreover, the block had been designed in an ambiguous manner. It could be regarded as three distorted blocks which encircle a public square, or as one irregular superblock with an outer and inner circle of buildings, interrupted by public streets leading towards the central square.

Another variation was invented by Berlage, Jan Gratama and G. Versteeg for the superblock in Transvaalbuurt (1916-31) which they designed for the Municipal Housing Authority (figs. 30, 31). Here, within a fortress of metropolitan buildings, a village or small town emerged on a pattern of interior streets, including closes according to Raymond Unwin's models.[102] All these examples succeeded in introducing calm green rural places into the metropolis without destroying the metropolitan character. On the contrary, the metropolitan character of the city was reinforced by the deliberately urban buildings which surrounded these enclaves.

This hybrid urban form was transformed into urban standard in the south of Amsterdam, the most coherent piece of Amsterdam's extensions in the 20th Century, built according to Berlage's plan from 1914-17 (fig. 32).[103] Berlage's famous bird's-eye views had already highlighted the fact that the urban fabric should consist of rectangular blocks with large open courtyards, and indeed hundreds of blocks were constructed in accordance with this ideal in the 1920s. The most ambitious and varied neighbourhood was to become the area around Pieter Lodewijk Takstraat

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[100] Nancy Stieber, *Housing Design and Society in Amsterdam. Reconfiguring Urban Order and Identity 1900-1920*, Chicago: University of Chicago Press 1998, pp. 221-224.
[101] Nancy Stieber, *Housing Design and Society in Amsterdam. Reconfiguring Urban Order and Identity 1900-1920*, Chicago: University of Chicago Press 1998, pp. 231-234.
[102] Sergio Polano (ed.), *Hendrik Petrus Berlage. Complete Works*, Milan: Electa 1988, p. 222.
[103] Francis F. Fraenkel, *Het plan Amsterdam-Zuid van H. P. Berlage. Met een catalogus van uitgevoerde bauwwerken en een register van architecten*, Alphen aan den Rijn: Canaletto 1976.

with blocks by Pieter Lodewijk Kramer and Michel de Klerk for De Dageraad (1918-23).[104] These blocks contained 292 flats as well as several shops facing the main street. Furthermore, the architects differentiated between more metropolitan buildings along streets and more rural buildings around neighbourhood squares. However, these more picturesque buildings around Therese Schwartze Plein and Henriette Ronner Plein, designed as individual houses even though they were connected and contained flats, were no longer created as separate components, set apart from the city and hidden in a courtyard of a superblock, but became normal elements of the city quarter. They were located in ususal public streets, being part of a continuous pattern of urban blocks. Their more remote character was only generated by the ingenious informality of the street system which set them apart from the major thoroughfares. Thus the *Hof* of the superblocks was reintegrated into the ordinary urban fabric which had found an appropriate expression for the antagonistic aims of the modern metropolis, namely creating quiet and homely neighbourhoods with picturesque forms and facilitating modern traffic with metropolitan boulevards, arranged with horizontally structured uniform facades.

The traditional elements of public urban spaces – the square and the street – also served as the backbone for the extension in Amsterdam-West. Berlage arranged urban dwellings around the Mercatorplein while reinforcing the urban character with arcades and shops (1924-27).[105] Along the Hoofdweg, Hendricus Theodorus Wijdeveld erected uniform symmetrical housing blocks which celebrated metropolitan speed with their seemingly endless repetition of identical elements (1925-27).[106] Housing estates in Amsterdam did not emerge outside the city, but were a continuum of the old city and constituted the new metropolis.

Yet another variation of the differentiated superblock was tested in Rotterdam. The famous block in Spangen by Michiel Brinkman (1919-22) at Justus van Effen Straat separated small-scale and large-scale areas vertically rather than horizontally.[107] Here, the more intimate two-storey houses were not set within, but on top of the metropolitan buildings. Indeed, his large four-storey block

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[104] Manfred Bock, Sigrid Johannisse, Vladimir Stissi, *Michel de Klerk. Architect and Artist of the Amsterdam School, 1884-1923*, Rotterdam: NAI Publishers 1997, pp. 249-257.

[105] Sergio Polano (ed.), *Hendrik Petrus Berlage. Complete Works*, Milan: Electa 1988, pp. 237-238.

[106] Maristella Casciato, *The Amsterdam School*, Rotterdam: 010 Publishers 1996, pp. 187-189.

[107] Maristella Casciato, Franco Panzini and Sergio Polano, *Olanda 1870-1940. Città, casa, architettura*, Milan: Electa 1980.

delivered a series of maisonettes on top of flats. Balcony access was designed in a way that it can be understood as an elevated street, and thus the traditional Dutch village was now integrated into the metropolis on top of urban tenements. Nevertheless, it was fully integrated into the coherent urban fabric and even hidden from the streets, only perceivable from the large courtyard or even just from the elevated street itself. This delicate balance of hybrid arrangement was subsequently destroyed when Le Corbusier picked up the idea of the *rue suspendue* and used it to create his *unité d'habitation* which bore no relation to the urban context.

However, Brinkman's block had not been a solitary monument. It was an integrated part of Rotterdam's extension at Spangen which was designed as a continuous area of reformed urban blocks. The blocks designed by Johannes Jacobus Pieter Oud (blocks I and II built in 1918, blocks VIII and IX in 1919) were somewhat less experimental.[108] His blocks in Tusschendijken (1920-24) were even more coherent, not only displaying dwellings around green uniform courts but also corner shops. Moreover, even Oud's iconic avantgardist estate at Kiefhoek (1925-1930) was not designed to break with the pattern of the metropolis. As the elegant round corners are mostly photographed in splendid isolation, it is usually forgotten that Oud's buildings are not located in a green suburban area – but in the centre of an existing, large urban block. Kiefhoek thus represents a stylistically modernised version of the inner village of a large metropolitan superblock – not overcoming the large city, but enriching it with an island of tranquillity. The guiding principle was still the overall image of the city, as Oud advocated in his article entitled "The monumental city image" in 1917. Here, he stated that the facades of urban dwellings should make up a street "in which the houses should be ordered according to a rhythmic play of planes and masses."[109]

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[108] Ed Taverne, Cor Wagenaar, *J. J. P. Oud 1890-1963. The Complete Works. Poetic Functionalist*, Rotterdam: NAI Publishers 2001.

[109]"[...] waarin de huizen zich zullen ordenen tot een rythmisch spel van vlak en massa." J. J. P. Oud, "Het monumentale stadsbeeld", in: *De Stijl*, vol. 1, no. 1, October 1917, pp. 10-11, quote p. 10.

4. Copenhagen and Scandinavia

In Scandinavia, blocks which often used the architectural language of Nordic Classicism also followed the ideal of the reformed metropolis. The most striking example can be found in Copenhagen, namely the Hornbaekhus by Kay Fisker (1922-23) (figs. 33-35).[110] Here, the qualities of the reformed metropolitan housing block are distilled to an almost diagrammatic clarity: the building follows precisely the form of the block and thus emphasises the role of the urban street pattern. Its façade stretching over more than 200 metres radically develops the idea of uniform apartments in a democratic society through the strict repetition of a single element - the window with its remarkably simplified frame. Nevertheless, this conceptually endless façade is carefully terminated with monumental rusticated pilasters at the corners of the building, again fixing the building exactly within its urban context. Through very traditional means of brick, framed windows and pilasters, Fisker achieved a new kind of metropolitan monumentality of modern everyday life. However, behind this explicitly urban façade, a large green court provides the inhabitants with all the necessities of a pleasant place to live, namely light, air, silence, trees and meadows, offering a beautiful and safe place for recreation and play despite being in the city centre. Furthermore, the block, containing 290 flats for the Hornbaekhus Cooperative Housing Association, again showed its adaptability to diverse urban functions. Due to the fact that it follows the street, the corners were preferred places for trade and this was where the corner shops were located (fig. 36).

Fisker's block – unique in its radical design – was no singular case in Copenhagen. R. Moller and E. Schiodte's Aladdinblock (1900-01) had created an early example for an entire perimeter block.[111] Further blocks, similar to Fisker's design both in the typological arrangement and the architectural treatment had been erected by Poul Boumann at Struensegade in 1921.[112] Later examples include the perfectly symmetrical block by Henning Hansen at Vilh. Thomsens Allé (1923)[113] and a large social housing block with 308 flats in the Gravervaenget quarter by K. Gording (1930), all following the simple and straightforward pattern of reformed blocks with

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[110] Tobias Faber et al., *Kay Fisker*, Copenhagen: Arkitektens Forlag 1995.
[111] Björn Linn, *Storgårdskvarteret. Ett bebyggelsemönsters bakgrund och karaktär*, Stockholm: Statens institut för byggnadsforskning 1974, pp. 181-182.
[112] Kay Fisker and F. R. Yerbury (eds.), *Modern Danisch Architecture*, London: Ernest Benn 1927, pl. 66-67.

large courts encircled by buildings following the street line. This Danish practice was summarised by F. C. Boldsen in an international compendium on housing in 1935: "it was succeeded by public assistance and control to erect large building-blocks in the form of border-building, which were laid out round beautiful, horticultural plantations."[114] The term "border-building" most probably derived from the German *Randbebauung* and was used to describe this simple basic pattern of the perimeter block. This general compatibility with the city in typological terms was reflected in the architectural style: "The building method has not undergone any great changes. Fronts and walls are continually erected of good Danish bricks, and the roofs are still covered with red, grey or yellow slates."[115] Neither typology nor style aimed at radical renewal, but rather followed the philosophy of reformist improvement. As a result, the new quarters did not break with the tradition of the city, but rather created a continuous extension, nevertheless different in its typological and stylistic clarity.

The use of reformed urban blocks was quite common in Sweden for urban housing until the 1930s. In a groundbreaking study, Björn Linn coined the term *Storgårdskvarteret* (large court blocks) for these kinds of blocks with large courtyards.[116] In Stockholm, several quarters feature a certain variety of urban patterns for reformed blocks, most of them displaying a kind of Nordic Classicism which contributes to the impression of a long-lasting and culturally defined urban setting. In a more picturesque way, the blocks of the Lärkstaden area around Wahlman's Engelbrektskyrkan were arranged on a plan by leading Swedish town planner Per Olof Hallman (1907-17).[117] Built on rocky terrain, the blocks featured spacious courtyards which also partially opened towards the street. The most exemplary district of reformed perimeter blocks emerged in the 1920s at Rödabergen, where a plan for a garden suburb from 1907 by Hallman had been

[113] Kay Fisker and F. R. Yerbury (eds.), *Modern Danisch Architecture*, London: Ernest Benn 1927, pl. 72-74.

[114] F. C. Boldsen, "Denmark. Housing", in: Bruno Schwan, *Städtebau und Wohnungswesen der Welt. Town Planning and Housing throughout the World. L'urbanisme et l'habitation dans tous les pays*, Berlin: Wasmuth 1935, pp. 106-108, quote p. 106.

[115] F. C. Boldsen, "Denmark. Housing", in: Bruno Schwan, *Städtebau und Wohnungswesen der Welt. Town Planning and Housing throughout the World. L'urbanisme et l'habitation dans tous les pays*, Berlin: Wasmuth 1935, pp. 106-108, quote p. 106.

[116] Björn Linn, *Storgårdskvarteret. Ett bebyggelsemönsters bakgrund och karaktär*, Stockholm: Statens institut för byggnadsforskning 1974.

[117] Magnus Anderson, *Stockholm's Annual Rings. A Glimpse into the Development of the City*, Stockholm: Stockholmia 1998, pp. 96-99.

revised in 1923 by Sigurd Lewerentz who proposed a much denser development (fig. 37).[118] Five-storey buildings encircle large green courtyards, while some internal streets are framed only by three-storey buildings. The coherent overall image results from the use of Nordic Classicism for all houses, many of them designed by Sven Wallander for the cooperative building society HSB.

This urban attitude to housing was further enhanced in the Atlas area, built after 1926 by Gunnar Morssing and other architectural firms (fig. 38).[119] Within this speculative inner urban development, the architecture achieves a certain monumentality of everyday life. Along the major streets, six-storey buildings with shops create the image of a classical metropolis while – due to the sloping terrain – these buildings towards the courtyards and lower streets rise up to nine storeys. Monumental arches with stairs mediate between the levels and visually connect the lower interior level of the neighbourhood dramatically to the main public thoroughfare. An entirely urban scene was developed in very difficult geographic conditions. Another special landscape was exploited in the Norr Mälarstrand development (1930-34) which included buildings by Ragnar Östberg and Björn Hedwell.[120] As the grounds extended along the waterfront west of Östberg's town hall, the plan proposed the repetition of six U-shaped blocks with courts opening towards the water. This ensured that the block received plenty of natural light and offered good views, while retaining a closed front towards the street. Furthermore, due to the fact that the edges of these blocks towards the water gave the appearance of identical towers of nine storeys, a monumental urban waterfront was created despite the openness of the design.

All these developments formed part of a creative discourse on urban housing. In 1921, the architect Eduard Hallquisth proposed a model for a superblock, consisting of several bars of eight-storey buildings, all including maisonettes with double-storey living rooms and kitchens instead of ordinary flats. This conceptual arrangement was nevertheless meant to create a traditional urban streetscape as the block followed the major streets with shops and restaurants.

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[118] Magnus Anderson, *Stockholm's Annual Rings. A Glimpse into the Development of the City*, Stockholm: Stockholmia 1998, pp. 108-111. Thomas Hall, "Urban Planning in Sweden", in: Thomas Hall, *Planning and Urban Growth in the Nordic Countries*, London: Spon 1991, pp. 167-246, 207. Björn Linn, *Storgårdskvarteret. Ett bebyggelsemönsters bakgrund och karaktär*, Stockholm: Statens institut för byggnadsforskning 1974, pp. 204-217.

[119] Magnus Anderson, *Stockholm's Annual Rings. A Glimpse inot the Development of the City*, Stockholm: Stockholmia 1998, pp. 116-119

[120] Magnus Anderson, *Stockholm's Annual Rings. A Glimpse inot the Development of the City*, Stockholm: Stockholmia 1998, pp. 128-131

This planning idea was discussed in the journal *Der Städtebau* by Heinrich de Fries who had proposed a similar arrangement four years earlier.[121] The built examples in Stockholm had been quite well known at an international level, as can be seen from articles in international journals.[122]

In Gothenburg, blocks with large courtyards were proposed in Albert Lilienberg's plans for the quarters of Christinedal-Bagaregården (1908) and Kungsladugård (1911-16), where large blocks were finally built in the period between1917 and 1928 by Arvid Fuhre and other architects. Another beautiful example which picked up on the tradition of the *landshövdingehus*, a timber construction on a stone base, was Arvid Fuhre's Standaret social housing block (1922-23) with its three storeys, coloured timber and reduced classical forms creating a vernacular style of urban block dwelling.[123] As an example from the provinces, Erik Hahr's Ivar apartment block in Västerås (1916) created a village-like courtyard with a playground.[124]

In Norway, Oslo under its town planner Harald Hals became a particular focus for classicist urban extension. One of the typical new quarters is Torshov which was built as a municipal housing estate constructed in the period between 1917 and 1925.[125] Hals' two large dwelling blocks (1923) both form a geometrical public square based on the Place Vendome in Paris and large formal interior gardens, which are also publicly accessible through monumental archways.[126] With only three storeys and a simple traditional design, the effect is more that of the cosiness of a small town rather than the thrill of the metropolis. Another example would be the quarters of Nordre and Sondre Asen with perimeter blocks by Hals and Harald Aars (1921–31).[127]

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[121] Heinrich de Fries, "Kleinwohnungsbau in der Großstadt. Zu den Vorschlägen von Eduard Hallquisth, Stockholm", in: *Der Städtebau*, vol. 18, 1921, pp. 56-62, pl. 27-29.

[122] *The Town Planning Review*, vol. 12, no. 4, 1927, pl. 54; Bruno Schwan, *Städtebau und Wohnungswesen der Welt. Town Planning and Housing throughout the World. L'urbanisme et l'habitation dans tous les pays*, Berlin: Wasmuth 1935, p. 377.

[123] Claes Caldenby, Jöran Lindvall, Wilfried Wang (eds.), *Sweden. 20th-Century Architecture*, Munich and New York: Prestel 1998, p. 63.

[124] Björn Linn, *Storgårdskvarteret. Ett bebyggelsemönsters bakgrund och karaktär*, Stockholm: Statens institut för byggnadsforskning 1974, pp. 201-203.

[125] Erik Lorange and Jan Eivind Myhre, "Urban Planning in Norway", in: Thomas Hall, *Planning and Urban Growth in the Nordic Countries*, London: Spon 1991, pp. 116-166, 139.

[126] J. G. Wattjes, *Moderne Architectuur in Noorwegen, Zweden, Finland, Denemarken, Duitsland, Tsjechoslowakije, Oostenrijk, Zwitserland, Frankrijk, Belgie, Engeland en Ver. Staten v. Amerika*, Amsterdam: Kosmos 1927, Figs. 7-9. Cf. Jonny Aspen, *Byplanlegging som representasjom. En analyse av Halrald Hals' generalplan for Oslo av 1929*, Oslo: Arkitekthogskolen 2003.

[127] Cf. Bruno Schwan, *Städtebau und Wohnungswesen der Welt. Town Planning and Housing throughout the World. L'urbanisme et l'habitation dans tous les pays*, Berlin: Wasmuth 1935, p. 281.

In the context of Finland, the plans for Helsinki prepared by Eliel Saarinen play a particularly important role. In 1910-15, he designed the new quarter of Munkkiniemi-Haaga as a major extension of Helsinki (fig. 39).[128] The specific urban character was not only due to the use of classical urban elements such as boulevards, vistas and monumental public buildings, but also to the arrangement of the major areas of the city with all types of reformed urban blocks. The intended uniformity and harmony of the urban composition was underlined by Saarinen's monochrome bird's-eye view. Saarinen ideas were included in the comprehensive plan for Helsinki, which Saarinen published together with Bertel Jung in 1918 and which proposed reformed block developments especially for the central areas.[129] Projects carried out during the 1920s varied the model according to the urban location. Inner urban blocks reached a much higher density with eight-storey buildings containing shops at the ground floor level.[130] The Etu-Tölöö neighbourhood is a good example of an ordinary middle-class extension. Here, according to the plan by Bertel Jung from 1917, blocks of six-storey buildings were erected by private enterprises, providing green spaces in the courtyard while accentuating the urbanity of the street with simple brick facades of strictly ordered windows, following the architecture of Heinrich Tessenow.[131] An example more from the urban edges is the working class neighbourhood of Uusi Vallila, arranged according to Jung's plan from 1917. In this case, block 555 by Armas Lindgren and Bertel Liljeqvist with its three storeys and its large green courtyard created more of a small town atmosphere, appropriate for the location, but not yet suburban.[132]

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[128] Eliel Saarinen, *Munkkiniemi-Haaga ja Suur-Helsinki*, Helsinki: Stenius 1915; Marika Hausen, Kirmo Mikkola, Anna-Lisa Amberg and Tytti Valto, *Eliel Saarinen. Projects 1896-1923*, Helsinki: Otava 1990; Marc Treib, "Urban Fabric by the Bolt. Eliel Saarinen at Munkkiniemi-Haaga", in: *Architectural Association Quarterly*, vol. 13, no. 2-3, 1982, pp. 43-58.

[129] Bertel Jung, *Ett Förslagtill stadsplan för "Sor-Helsingfors"*, Helsinki: Lilius & Hertzberg 1918. Riita Nikula, "Bertel Jung. The Pioneer of Modern Town Planning in Helsinki", in: The Society for Art History in Finland (ed.), *Icon to Cartoon. A Tribute to Sixten Ringbom, Studies in Art History*, vol. 16, Helsinki and Jyväskylä: Taidehistorian Seura 1995, pp. 193-212.

[130] Bruno Schwan, *Städtebau und Wohnungswesen der Welt. Town Planning and Housing throughout the World. L'urbanisme et l'habitation dans tous les pays*, Berlin: Wasmuth 1935, p. 175.

[131] Riita Nikula, *Bebaute Landschaft. Finnlands Architektur im Überblick*, Helsinki: Otava 1993, p. 121.

[132] Riita Nikula, *Bebaute Landschaft. Finnlands Architektur im Überblick*, Helsinki: Otava 1993, p. 122-123.

5. Paris and France

After half a century of various attempts, a major step in the development of sanitary urban workers' housing was undertaken in 1905, a step which led to seminal results. The Fondation Rothschild pour l'amélioration de l'existence matérielle des travailleurs opened a competition for an entire urban block at the Rue de Prague in Paris. From the very beginning, the foundation asked for a continuation of the existing urban fabric, a variation of the traditional Parisian town house with improved sanitary conditions: "The type of building which this competition looks for is, with the exclusion of all other types, the apartment house, constructed in conformity with the building rules of the Municipality of Paris and conceived with the best conditions in hygiene, sanitation, comfort, vision and low costing."[133] The programme explicitly rejected any aesthetics which might be connected to working class experiments such as the famous Cité Napoléon (1849-52). The new building was to avoid "the idea of a workers' city [*cité ouvrière*], of barracks or of a hospice".[134] Moreover, the municipality did not want to see the new buildings as "class housing, caste housing".[135]

The competition, which was held in two phases, created an entire catalogue of possibilities to design an urban block ranging from large interior courtyards, smaller internal buildings, internal streets and internal squares to courts towards the street (fig. 40). All different means were used in all possible combinations.[136] The most radical solution came from Tony Garnier. His building created an autonomous structure which no longer followed the street and thus avoided any enclosed space. Nevertheless, to fit his building into the context, at least at ground level, a row of

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[133] "Le type de maison mis au concours était, à l'exclusion de tous les autres, la maison à étages, construite en conformité des règlements des la Ville de Paris, et conçue dans les meilleures conditions d'hygiène, de salubrité, de confort, d'aspect et de bon marché."

[134] "l'idée de la cité ouvrière, de la caserne ou de l'hospice." Marie-Jeanne Dumont, *Le logement social à Paris 1850-1930. Les habitation à bon marché*, Liège: Mardaga 1991, p. 34.

[135] "des maisons de classe, des maisons de caste", H. Turot, "Rapport au nom de la Commission des H.B.M.", in: *Conseil Municipal. Rapports et Documents*, no. 8, 1905, p. 133, quoted after: Marie-Jeanne Dumont, *Le logement social à Paris 1850-1930. Les habitation à bon marché*, Liège: Mardaga 1991, p. 105.

[136] *La Construction Moderne*, 2nd series, vol. 10, 1904-05, p. 483, pl. 97-99; *La Construction Moderne*, 2nd series, vol. 17, 1911-12, pl. 1; Marie-Jeanne Dumont, *Le logement social à Paris 1850-1930. Les habitation à bon marché*, Liège: Mardaga 1991, pp. 31-57, 84-90; Nicholas Bullock and James Read, *The Movement for Housing Reform in Germany and France 1840-1914*, Cambridge 1985, pp. 403-407; J Taricat und M Villars, *Le logement à bon marché. Chronique. Paris 1850-1930*, Boulogne: Editions Apogée 1982; Adolphe Augustin Rey, *Le cri de la France: des logements! La gravité de la crise, les grandes remèdes*, Paris: Rivière 1912.

one-storey shops helped to define the public space. Garnier's design thus marked the critical point where sanitary urban housing started to depart from the context of the city.

The first prize was won by Adolphe Augustin Rey. In his design too, the building only met the boundaries of the block at ground floor level. The upper floors opened up on three sides to allow for better ventilation of the courts. The elevation reinterpreted the traditional facade structure by providing public facilities as shops, a restaurant, an assembly hall and a library on the ground floor, flats in the following floors and terraces on the roof. Augustin Rey also won the second phase and the building was finally constructed by 1909 (figs. 41, 42). The final building was much more enclosed. Only two smaller openings - but up the full height of the eight-storey building - allowed for good ventilation of the three interconnected interior courtyards, one of them designed as a semi-public square with trees. Two smaller street courts had also been added. Shops covered almost the entire street front. Further facilities included a restaurant, a nursery, an assembly hall, baths and artists' ateliers, while the building contained 321 flats. Specific emphasis had been put on the design of the facades which achieved a delicate balance between urban richness and low-cost housing. While the generic material of brick broke with the Haussmannian tradition and provided an industrial aspect, structural parts such as the lower floors and the projections were executed in stone masonry which alluded to luxury apartments. While the classical orders had been avoided, refined ornamentation and architectural motifs nevertheless marked a higher standard. While the entire block was designed in overall unity, the architect nevertheless tried to achieve variety by using different materials and colours, by introducing horizontal and vertical subdivisions as well as numerous projections, and by providing a variety of architectural motifs as bay windows, loggias, balconies and gables. The result is a distinct building which nevertheless fits smoothly into the urban context.

The simpler solution of introducing one large court was chosen by Auguste Labussière for his block in Avenue Daumesnil (fig. 43). It was built for the Groupe des Maisons Ouvrières in 1908 and contained 183 flats. A monumental arch marked the entrance to the formally designed court from which the staircases to the flats were entered. In 1912, the Ville de Paris decided not to leave social housing to the philanthropic societies any longer. It started its programme for HBM (*habitations à bon marché*, low-cost housing) with the announcement of two competitions for

sites in Avenue Emile Zola and Rue Henri Becque.[137] The first was won by Payret-Dortail whose design proved the importance of the Rothschild competition. It can be regarded as simply an adaptation of Rey's design to the different site conditions. In the second competition, the prize went to Albenque and Gonnot who opened the central courtyard towards the street on three sides so that the resulting building could almost be seen as four separate houses.

This obsession with opening up the courtyards and interrupting the street front was first conceived as a comprehensive concept by Eugène Hénard in 1903. In the second volume of his *Transformations de Paris*, he proposed a *Boulevard à redans* for the entire ring road which was to be built on the former ring of fortifications.[138] This boulevard was to be flanked by buildings with open courts, thus fronting the street with an alternation of facade and garden. While the major reason for this typology was sanitary - to bring light and air into the block - another reason was purely aesthetic, namely to interrupt the street front and to create variety against the model of the uniform enclosed Haussmannian boulevard. Henri Provensal adapted the model of the *redan* to buildings on singular lots. In his plans, the urban building was no longer connected to its neighbours, but separated by open courts.[139] Nevertheless, it still had a close relationship with the street. The major facade still reached the street line and at ground level the entire lot was used for shopping space.

Private speculative buildings also slowly adopted the use of enlarged garden courts. As private building continued to deal with lots, it was a rare exception to have the opportunity of combining several lots into a coherent design. An early example of the combination of three lots with one internal garden court were the tenements by J. Charlet and F. Perrin in the Rue Charles-Baudelaire (1908), where the ground floor behind the exuberant facade was used for shops. Around 1912, R. Bouvard designed an entire perimeter block at Quai d'Orsay and Avenue de Suffren where he created a comparably spacious internal garden court.[140]

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[137] Ville de Paris, *Premier concours pour la construction d'habitations à bon marché*, Paris: Ville de Paris 1913.

[138] Eugène Hénard, *Études sur les transformations de Paris*, Paris 1903-09, fascicule 2: "Les alignements brisés. La question des fortifications et le boulevard de Grande-Ceinture", Paris: Libreries-imprimeries réunies 1903.

[139] Henri Provensal, *Les problèmes sociaux. L'Habitation salubre à bon marché*, Paris: Schmid 1908.

[140] Monique Eleb with Anne Debarre, *L'invention de l'habitation moderne. Paris 1880-1914. Architectures de la vie privée, suite*, Paris: Hazan 1995, pp.295-298.

In Paris - the city of the *flaneur* - the value of animated public space was thus not forgotten even when it came to sanitary housing. It was also the topic of a broader discourse on urban aesthetics which played a role in all discussions on urban housing. In his work *L'Esthétique de la rue* from 1901, French writer Gustave Kahn compiled an almost encyclopaedic analysis of the aesthetics of the street. His observations were an attempt to present the character of the appearance of a street in all its historic, functional and formal breadth, followed by the challenge to develop a consciously comprehensive street aesthetic. Urban dwellings were part of the new street aesthetics to come, as were public monuments: "Obviously, in our democratic society [...] the two principle architectural motifs have disappeared: the church and the palace. But the new civilisation will demand instead first convenient and beautiful dwellings for all and second two sorts of monuments: people's palaces and popular theatres."[141] Urban dwellings were seen as part and parcel of an urban spectacle which also included new monuments for the democratic community.

For these urban dwellings, he predicted a more coherent design as entire blocks would in future be raised by a single developer, and he foresaw the use of perimeter blocks as sanitary demands would encourage the arrangement of green courts: "The street of the future will likely be composed of large façades, matching each other, because the companies that will absorb the costs for building the new streets will be able to adopt an obvious manner of construction, which raises an attractive and symmetrical façade for an entire block of houses, instead of juxtaposing similar façades for each building. [...] The necessity of air will without any doubt force the arrangement of a central garden, despite the price of the grounds."[142] Finally, everything had to be considered from an aesthetic point of view, as he mocked those who took a purely sanitary approach to

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[141] "Évidamment, dans notre civilisation démocratique, et qui le demeurera, quelque aspect contraire qu'en fournissent des réactions momentanées, les deux principaux motifs de l'architecture ont disparu: l'Eglise et le Palais. Mais cette civilisation nouvelle demandera au lieu et place, d'abord des logis commodes et esthétiques pour tous et surtout deux sortes de monuments à créer qui sont les maisons du Peuple et les Théâtres populaires." Gustave Kahn, *L'Esthétique de la rue*, Paris: Fasquelle 1901, p. 301.

[142] "Donc la rue probable, se composera de larges pans de façades, concordant entre elles, car les compagnies qui construisent à leurs frais des rues nouvelles pourront adopter un mode de construction apparente qui érige une façade agréable et symétrique pour tout un îlot de maisons, au lieu de juxtaposer des façades semblables pour chaque corps de bâtiment. [...] La nécessité de l'air, amènera sans doute malgré le prix du terrain à l'amenagement d'un jardin central [...]." Gustave Kahn, *L'Esthétique de la rue*, Paris: Fasquelle 1901, p. 300.

housing: "At the moment hygiene is the god, the doctor is his prophet, and the architect follows their prescriptions."[143] Against such a reductive concept, he proposed an "art de rue".

Another writer who devoted himself to the beauty of the city was Emil Magne. The title of his work published in 1908 alone announced the diversity he intended to bring to his theme: *L'Esthétique des villes. Le décor de la rue, les cortèges, marchés, bazars, foires, les cimetières, esthétique de l'eau, esthétique du feu, l'architectonique de la cité future*. It was largely the diverse urban activities that shaped the aesthetic of the city. The architectural street was thus defined just as the background of colourful urban life: "Lifeless organism, it needs to be inhabited and full of walking people to gain a soul."[144] His praise of street shops as the animators of urban life implied the rejection of any monofunctional dwelling quarter: "The shop is the burning soul of the street. Every street, where it is forbidden, resemble these Egyptian avenues which are followed by two walls of tombs."[145]

His vivid descriptions of city life made a convincing case for greater variety in urban settings which also included residential neighbourhoods. He especially opposed uniform tenements which he called "barracks destined to contain a maximum of tenants".[146] To justify his appreciation of picturesque historic townscapes, he explicitly referred to Camillo Sitte and pleaded for greater respect of the historic context in new building programmes.[147] His ideas were by no means restricted to historic urban images. He also reserved great appreciation for the urban visions of science fiction authors such as Camille Mauclair's urban fantasies in steel with aluminium

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[143] "Actuellement l'hygiène est Dieu, le médecin son prophète et l'architecte obéït à leurs préscriptions." Gustave Kahn, *L'Esthétique de la rue*, Paris: Fasquelle 1901, p. 299.

[144] "Organisme inerte, elle a besoin d'être habitée et parcourrue pour acquérir une âme." Emile Magne, *L'Esthétique des villes. Le décor de la rue, les cortèges, marchés, bazars, foires, les cimetières, esthétique de l'eau, esthétique du feu, l'architectonique de la cité future*, Paris: Mercure de France 1908, p. 62.

[145] "Le magasin est l'âme ardente de la rue. Tout rue qui l'a proscrit ressemble à ces allées égyptiennes circulant à travers deux murailles de tombeaux." Emile Magne, *L'Esthétique des villes. Le décor de la rue, les cortèges, marchés, bazars, foires, les cimetières, esthétique de l'eau, esthétique du feu, l'architectonique de la cité future*, Paris: Mercure de France 1908, p. 89.

[146] "des casernes destinées à l'enfournement d'un maximum de locataires", Emile Magne, *L'Esthétique des villes. Le décor de la rue, les cortèges, marchés, bazars, foires, les cimetières, esthétique de l'eau, esthétique du feu, l'architectonique de la cité future*, Paris: Mercure de France 1908, p. 16.

[147] Emile Magne, *L'Esthétique des villes. Le décor de la rue, les cortèges, marchés, bazars, foires, les cimetières, esthétique de l'eau, esthétique du feu, l'architectonique de la cité future*, Paris: Mercure de France 1908, p. 18.

palaces and metallic vegetation and drew inspiration from these sources for ideas which would enrich the city.[148]

A very special solution for a new urban block typology was developed by Henri Sauvage - the block with terraces. Here, the general tendency for reforming the block was turned inside-out. Sauvage did not try to improve the sanitary conditions by creating a spacious court in the centre of the block, but to push the building masses to the centre and create more spacious conditions in the street. His blocks, which at ground level covered the whole block, but considerably stepped back on every floor, allowed both for more air and sun within the flats and the street. His first drawing, entitled *Maisons de rapport – Maisons ouvrières*, for such a block with terraces in 1909 related to social housing. The HBM building in Rue des Amiraux in Paris (1913-27) represents his most comprehensive realisation (fig. 44). In this construction, the centre of the block is occupied by a swimming pool while the surrounding flats rise up to eight storeys. However, his set-back blocks remained a personal obsession and never became a model for a new metropolis.[149]

Finally, in 1919 the long hoped for opportunity to extend the city of Paris arrived. The city abandoned its fortifications and opened a construction zone next to the Boulevard periphérique. A large area was developed by the city with HBM which all followed the pre-war models of open courts, redans, internal squares and streets.[150] Due to the fact that the new scale demanded the layout of entire neighbourhoods, the achievements of formal Beaux-Arts design also came into consideration. The first large realisation, the Cité de Montmartre between the Porte de Clignancourt and the Porte de Montmartre with 2,734 flats designed by the architects of the Office public d'habitations à bon marché (1920-26), featured relatively artificial patterns of triangular, rectangular, pentagonal and octagonal blocks (figs. 45, 46). All the courts were designed as open spaces, but all the public streets were clearly defined by buildings, most of them

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[148] Emile Magne, *L'Esthétique des villes. Le décor de la rue, les cortèges, marchés, bazars, foires, les cimetières, esthétique de l'eau, esthétique du feu, l'architectonique de la cité future*, Paris: Mercure de France 1908, p. 340. See also: Charles Magny, *La beauté de Paris. Conservation des aspects esthétiques*, Paris: Tignol 1911; Charles Lortsch, *La beauté de Paris et la loi*, Paris: Sirey 1913.

[149] François Loyer et al., *Henri Sauvage. Les immeuble à gradins,* Liège: Mardaga 1987.

[150] Jean Louis Cohen and André Lortie, *Des fortifs au périf. Paris, les seuils de la ville*, Paris: Picard 1992; Henri Sellier, *La crise du logement et l'intervention publique en matière d'habitation populaire dans la région parisienne*, Paris: Office public d'habitations à bon marché 1921.

having shops at street level. It was this model of deliberate urban construction which was followed until the Second World War, not the idea of buildings in an uninterrupted green space as proposed by Le Corbusier in 1934 specifically for the Boulevard periphérique.

Apart from the urban typology, the city also ensured appropriate architectural design. As Haussmannian uniformity was still considered monotonous, the focus was on bringing variety into the new neighbourhoods: "As one has to erect [...] no longer one single building, but real quarters which are crossed by public streets, there is an even stronger necessity to vary the facades, to make the austerity of the profiles more joyful and – without rejecting to produce the composition of an ensemble – to treat every group of buildings in a different manner. The subdivision of large masses into distinguished buildings helps to facilitate this effort of diversification."[151] Aesthetic considerations, especially in terms of the task to fit the new scale of housing into the image of the existing city, played a crucial role in the planning of these new dwelling quarters.

After 1923, not only social housing was erected, but also more luxury dwellings. The Régie immobilière de la Ville de Paris (RIVP) was founded by the city and several banks to build ILM (*immeubles à loyers moderés*, buildings with moderate rent level). An example of such middle class housing was the large block with a spacious garden court at the Porte de Saint-Mandé (1923-27), designed by all four architects of the society, Bouchet, Guidetti, Plousey and Pouthier. Furthermore, in 1930 the Société anonyme de gestion immobilière (SAGI) was founded as a private building company in cooperation with the city to erect tenements without rent restriction. Up until 1935, it constructed nearly 20,000 flats, all more or less designed by the society's chief engineer Louis Heckly. Examples of these high-quality town houses range from the more art-déco blocks in brick at the Porte Dorée in the East to the more classical blocks in stone at the Porte d'Auteuil in the West (fig. 47). The extension zone had thus become a mixed urban area, offering flats in different rent categories with different architectural styles and allowing for mixed

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[151] "Lorsque l'on a à édifier [...] non plus un seul immeuble, mais de véritables quartiers coupés de voies publiques, la nécessité s'impose plus encore de varier les façades, d'égayer l'austérité des profils et, sans reoncer à faire une composition d'ensemble, de traiter chaque groupe de bâtiments suivant une conception différante. La division des agglomérations importantes en immeubles distincts facilite cet effort de diversification." Amédée Dherbecourt, *Rapport sur l'action de l'OPHBM de la Ville de Paris*, Conseil Municipal de Paris, rapports et documents, 1929, imp.

use. With its open courts and its variety of materials, the blocks can be easily distinguished from the historic parts of Paris, but as they were still designed as urban blocks, they unmistakably continued the urban fabric of Paris.

This model of the varied urban block was even exported to the peripheral zone around Paris, with these types of metropolitan housing blocks also emerging in the *banlieue*.[152] In 1931, Joseph Bassompierre, Paul de Rutté and Paul Sirvin designed a superblock for the Housing Office of the Seine Department in Boulogne-sur-Seine. The complex with its 930 flats was subdivided into several wings and included internal streets and squares. Another uniform superblock was built for the same client by Hummel and Dubreuil at Maisons Alfort in 1934 (fig. 48). Here, the 803 flats were arranged in wings surrounding one public internal square. Although both these examples featured a very much reduced and simplified architectural language, the design of the facades was nevertheless done with a specific urban distinctiveness, with the conviction that the architecture of the house should enrich the urban realm. In the view of architectural historian Louis Hautecoeur, this emphasis on public appearance – in contrary to German functionalism – was the result of the specific national culture of France. As he put it in his preface to a volume promoting three housing blocks by Gaston et Juliette Tréant-Mathé at the periphery of Paris under the title of *Joyful Dwellings*: "The Frenchman loves the ornament."[153]

6. Milan and Southern Europe

In Southern Europe the task for reforming housing blocks required different means. As for climatic reasons there was no aim to introduce more sunlight into urban housing, there was no need for arranging large courtyards. Combined with the centuries old tradition of out-door street life, this led to an emphasis on the public parts of the tenement buildings, i.e. particularly the facades. Milan as the centre of economic development also became the centre of new

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no. 39, vol. 2, p. 329: quoted after: Jean Louis Cohen and André Lortie, *Des fortits au périf. Paris, les seuils de la ville*, Paris: Picard 1992, p. 160.

[152] Paul Chemetov, Marie-Jeanne Dumont, Bernard Marrey, *Paris-Banlieue 1919-1939, architectures domestiques*, Paris: Dunod 1989.

[153] "Le Français aime le décor." Gaston et Juliette Tréant-Mathé, *Gais logis*, preface by Louis Hautecoeur, Paris: Tolmer ca. 1930.

metropolitan architecture in the 1920s. The apartment house Ca' brütta by Giovanni Muzio (1919-22) was planned as the manifesto of the architecture of the Novecento Milanese (figs. 49, 50).[154] Typically, he did not conceive a perimeter block with a green court, but subdivided the block into two buildings by introducing a new street. The emphasis was thus put on the arrangement of new public spaces, even underlined by the motif of a reduced triumphal arch which spanned the new street. However, the buildings fame resulted from the sophisticated design of its facades. While using classical motifs such as aediculas, niches and rustication, Muzio designed them in such a purified manner and arranged them in such an unclassical way, that the building had such a surprising effect on the public that it was nick-named "the ugly house".

Yet another aspect of the facade is crucial in our context. Dealing with the design of an entire block, Muzio had the task to fit his new building aesthetically into the existing urban context. As this consisted typically of several different houses within one urban block, the architect decided to break the overall facade of his building down into several units which had approximately the size of traditional town houses. Thus the new complex picked up the scale of the existing city. As the differences between the simulated house units were minimal, the whole complex was nevertheless readable as a harmonious unit. With this design Muzio achieved a quality of urban design within the development of one block which he was also demanding for the entire city. In a seminal article in 1921 he had set the task for future urban design to "form a harmonious and homogeneous unit out of the complex of buildings."[155]

After this scene-setting example Milan became the showplace of urban architecture of the Novecento Milanese.[156] The facades towards the public spaces became the main design issue of all these typologically quite traditional buildings. Architects like Giuseppe de Finetti, Gio Ponti

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[154] Fulvio Irace, *Ca' brütta*, Rome: Officina edizioni 1982; Fulvio Irace, *Giovanni Muzio 1893-1982. Opere*, Milan: Electa 1994; Sergio Boidi (ed.), *L'architettura di Giovanni Muzio*, exhibition catalogue, Milan: Abitare Segesta 1994.

[155] "formare con il complesso degli edifici un tutto armonico ed omogeneo." Giovanni Muzio, "L'architettura a Milano intorno all'Ottocento"*,* in: *Emporium*, vol. 53, no. 317, 1921, pp. 241-258, quote p. 258

[156] Richard A. Etlin, *Modernism in Italian Architecture 1890-1940*, Cambridge, Mass.: MIT Press 1991; Annegret Burg, *Stadtarchitektur Mailand 1920-1940. Die Bewegung des "Novecento Milanese" um Giovanni Muzio und Giuseppe de Finetti*, Basel: Birkhäuser 1992; Marisa Macchietto, "Giuseppe de Finetti: Architettura e città", in: *Bolletino del centro di studi per la storia dell'architettura*, no. 33, 1986, pp. 3-113.

or Piero Portaluppi contributed to this continuation of the urban fabric in a metropolitan scale – the latter picking up Muzio's theme of the triumphal arch over a public street in his design for a mixed development of offices and flats at Corso Venezia in 1926-30. Perhaps the most metropolitan gesture was achieved in Muzio's Case Bonaiti at Piazza della Repubblica (1935-36), where a block of twelve storeys faced a public square with a facade which could be read as an exercise to transform gradually a plain and horizontal basement into a deep and vertically structured attic zone (fig. 51).

A quite unique example of a reformed urban block was realised in Madrid, which suffered from extremely densely built tenements, and then widely dessiminated through Werner Hegemann's *City Planning. Housing* in 1938 (figs. 52, 53).[157] Here, an entire rectangular urban block was covered with two rings of buildings, repeating Frank Lloyd Wright's idea for the Lexington Terraces in Chicago. However, with its six storeys this block in Calle de la Princesa continued a real metropolitan scale, and the internal courtyard with its pergolas formed a kind of communal *patio* introduced into a block of municipal social housing.

7. London and Great Britain

Urban design historiography stylised London as the ultimate example of decentralised housing in the 20th Century. Garden Cities such as Letchworth and Welwyn, Garden Suburbs like Hampstead, and New Towns from Stevenage to Milton Keynes became synonymous with new housing estates in Great Britain's capital city – all featuring an anti-metropolitan ideology and celebrating a break with the existing city. This strategy of decentralised green housing developments gained great prominence at an early stage. In his catalogue for the international Urban Design Exhibition in Berlin in 1910, Werner Hegemann praised London for its "fabulous decentralisation of housing compared to continental circumstances."[158] This popularity lasted throughout the century. London's Garden Cities and New Towns feature in all the historical

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[157] Werner Hegemann, *City Planning. Housing, vol. 3, A Graphic Review of Civic Art 1922-1937*, New York: Architectural Book Publishing Company 1938, p. 126.
[158] "für kontinentale Verhältnisse geradezu märchenhaften Dezentralisation des Wohnungswesens", Werner Hegemann, *Der Städtebau nach den Ergebnissen der allgemeinen Städtebau-Ausstellung in Berlin nebst einem Anhang: Die internationale Städtebau-Ausstellung in Düsseldorf*, vol. 2, Berlin 1913, p. 277.

accounts, whereas the more dense and urban examples are rarely mentioned. What is more, only one estate from the largest inner urban housing project, the housing programme of London County Council, is included in the *RIBA Book of 20th Century British Housing*, published in 1999 and intended as a summary of the century.[159] It seems that the term housing still implies more a variety of suburban or structuralist approaches than metropolitan, inner-urban buildings.

This has not always been the case, not even in London. In parallel to the Garden City ideology which sought to escape the metropolis, London was caught in a huge wave of urbanisation with multi-storey tenements both public and private in the early 20th Century. It was in this period when the usual scale of two- to four-storey neighbourhoods changed into five- to ten-storey developments. Public housing played an essential role in this process, organised by London County Council (LCC). After several philanthropic attempts to create improved workers' tenements, the Housing of the Working Classes Branch was founded in the Architect's Department of LCC in 1893 with the purpose of erecting, letting and maintaining workers' flats.[160] The major task was to redesign dilapidated and overcrowded inner-urban slum areas. As these areas usually consisted of two-storey terraced houses, their replacement with five-storey buildings constituted a substantial step towards a metropolitan image of the urban fabric. Moreover, due to the fact that the buildings fitted into the urban street network, directly addressed the streets, were designed with architecturally aspirational facades, and included other functions such as shopping facilities, the new estates expressed a pro-urban attitude.

These principles can best be observed with LCC's first large slum clearance project in London, the Boundary Street Estate in Bethnal Green (1893-1900), designed by Owen Fleming and other architects from the Architect's Department (figs. 54-56). It transformed this run-down slum area into a real neighbourhood by changing its informal grid pattern into a centralised plan with a circular garden square at the centre – which may well have inspired Ebenezer Howard's circular Garden City diagrams which he published just a few years later. Furthermore, the new neighbourhood not only consisted of dwellings, but formed a real mixed use urban quarter. Apart

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[159] Ossulston Estate; Ian Colquhoun, *RIBA Book of 20th Century British Housing*, Oxford: Butterworth & Heinemann 1999.

from its 1,069 flats, the redevelopment included 18 shops, several workshops, clubrooms, a surgery and a public recreational square. It also retained two existing schools, a church, a laundry and a factory, and thus served all major purposes such as dwelling, work, traffic, recreation and culture within walking distance, long before Clarence Perry "invented" the neighbourhood unit in 1929.

All of this is summarised in the contemporary description by LCC, stating that the plan was "based on a system of streets radiating from a central open space laid out as an ornamental garden. It was proposed that the buildings should be block dwellings, three, four, and five storeys in height and it was estimated that they would accommodate 4,688 persons. The buildings fronting the avenue leading from Shoreditch High-street to the central garden were to have shops on the ground floor, and 58 workshops and 200 costermongers' sheds were to be provided on the area."[161] Although the tenements were designed for the working class, they contained a variety of flat types from one- to six-room flats and thus attracted tenants from across the social spectrum. One of the major problems had been the overcrowding of the area, so one might have assumed that the redevelopment would be less dense than the old neighbourhood. However, with the much higher buildings, it was possible to house nearly the same number of people (5,719 people before compared to 5,524 after the redevelopment) – but in much better conditions.[162] The scheme thus retained a realistic inner-urban population density and added to the architectural density through larger buildings and better framed public spaces. At the same time, the broader streets and larger courtyards allowed for much more green, light and air than the previous low-rise fabric.

Despite all the financial restraints, the architects put a major emphasis on the design and building quality of the estate. The leading architect Owen Fleming reflected upon the "architectural appearance of such buildings" and argued that "some attention should be given to external appearance […]; and that if this were done the inhabitants would appreciate it."[163] Working class housing was not only conceived as a sanitary or economic task, it was also understood as an

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[160] Kenneth Campbell (ed.), *Home Sweet Home. Housing Designed by the London County Council and Greater London Council Architects 1888-1975*, London: Academy Editions, 1976; Susan Beattie, *A Revolution in London Housing. LCC Housing Architects and their Work 1893-1914*, London: The Architectural Press, 1980.
[161] London County Council, *The Housing Question in London 1855-1900*, London: LCC 1900, p. 194.
[162] London County Council, *The Housing Question in London 1855-1900*, London: LCC 1900, p. 208.

aesthetic challenge in the sense that beautiful homes would add to the quality of living. The use of high-quality materials and the introduction of domestic elements such as gables were inspired by the Arts and Crafts Movement. Furthermore, a varied composition introduced the picturesque into the metropolitan scale and created a sense of home within the big city. The achievements were recognised among architectural colleagues. After a conference given by Fleming at the RIBA in 1900, the architect Thomas Blashill acknowledged the good architectural standards: "With so little variety in material – with nothing more ornamental than great bands of brickwork, which was all they could afford – it must be acknowledged that they had achieved, from an architectural point of view, very satisfactory results."[164] Moreover, at the opening ceremony on 3rd March 1900, the Prince of Wales personally praised the architectural quality as the official report shows: "Their Royal Highnesses visited specimen tenements in Benson-buildings, and expressed themselves greatly pleased with the design of the buildings."[165]

This high architectural standard continued in subsequent LCC projects. The Millbank Estate in Westminster (1899-1902), designed by Reginald Minton Taylor and others, was arranged symmetrically around a garden square. Its 895 flats were located in buildings which – as in the Boundary Street Estate – did not form full blocks with interior courtyards, but bars which strictly followed the street lines and clearly defined the corners. This typology derived from the arrangement of terraces and achieved approximately the same results as the perimeter block in architecturally defining public spaces, with the advantage of not having enclosed courtyards. Once again, the Arts and Crafts-inspired design which aimed to create images of houses within the tenement-typology was well received by architectural colleagues such as W. Bonner Hopkins who wrote in a contemporary critique: "the building […] with its pleasing proportions, mass, line and colour, being a salve for the sore eyes of the architects of today."[166] Also the buildings from the Webber Row Estate in Southwark (1899-1907), designed by James Rogers Stark and others, featured Arts and Crafts-motifs (fig. 57).[167] With their high gables, they seem to subdivide the

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[163] The Builder, 17th February 1900, vol. 78, p. 159; after: Susan Beattie, *A Revolution in London Housing. LCC Housing Architects and their Work 1893-1914*, London: The Architectural Press, 1980, p. 22.

[164] Owen Fleming, "The Rebuilding of the Boundary Street Estate", in: *Journal of the Royal Institute of British Architects*, vol. 7, 3rd series, 1900, pp. 264-273, quote p. 273.

[165] London County Council, *The Housing Question in London 1855-1900*, London: LCC 1900, p. 213.

[166] *AA Notes*, vol. 15, April 1900, pp. 54-55; after: Susan Beattie, *A Revolution in London Housing. LCC Housing Architects and their Work 1893-1914*, London: The Architectural Press, 1980, p. 69.

[167] London County Council, *Housing of the Working Classes in London*, London: LCC 1913, pp. 47-50.

bar-unit into traditional townhouses, creating a more homely atmosphere. Again, the whole estate was designed in the bar-typology, but as the front-bar strictly followed Waterloo Road and incorporated a full row of shops on the ground floor, these six-storey tenements were definitively urban in character.

The most metropolitan LCC development of the pre-war period was the Bourne Estate in Camden (1901-05), designed by Ernest Hadden Parkes and others (figs. 58, 59).[168] Here, the buildings formed a large enclosed perimeter block with monumental entrance arches to the court. Within the court, six further buildings were arranged as north-south-oriented bars next to internal streets and formal gardens. Towards the surrounding streets the six-storey buildings displayed a more Edwardian taste, reflecting the general trend towards Renaissance forms. In this case too, the ornamentation aimed to subdivide the large complex into house units – one with rustication in brick, one with pilasters in plaster – in order to fit into the urban context. At the same time, the strict rhythm within a uniform design retained a sense of unity throughout the entire complex. Furthermore, the delicate use of colours – three different types of brick contrasting with plaster – brought a refreshing variety into this large complex. Shops towards the major street contributed to the urban character of this very dense inner city development, where nevertheless "each tenement has at least one room looking on to a garden."[169] The Union Buildings Estate in Holborn (1907-08) possessed a comparable character, offering a contrast between the vibrant street life with shops and markets and the calm emptiness of the interior courts.[170]

It comes at no surprise that local historical precedents for perimeter blocks were discovered and published right at the time when dense inner urban developments also started to use this typology. One example of such a precedent is the unrealised scheme for Westminster between Victoria Street and St. James's Park by William Bardwell from 1832. It proposed several large rectangular blocks of terraced houses, closing the blocks on all four sides and creating large

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[168] London County Council, *Housing of the Working Classes in London*, London: LCC 1913, pp. 86-89.
[169] W. E. Riley, "The Architectural Work of the London County Council", in: *Journal of the Royal Institute of British Architects*, vol. 16, 3rd series, 1909, pp. 413-422, quote p. 417.
[170] London County Council, *Housing of the Working Classes in London*, London: LCC 1913, pp. 50-53.

enclosed green courtyards. It was published in the *Architectural Review* in 1912 and served as a justification for similar developments during this period.[171]

However, the ideal of rural living was not only challenged by real developments, it was also vigorously criticised in theoretical discourse. The most acute condemnation of the Garden City Movement came from the architect Arthur Trystan Edwards, published in two articles in the *Town Planning Review* in 1913, usually known for its support of Garden City ideals. Edwards' criticism was based on a profoundly urban understanding of city living. He alluded to Aristotle's political definition of cities when he stated that "the fact that the ordinary man likes the company of his fellows and wishes to be in the very hub of things".[172] He celebrated urban culture while stating that the working man also "likes to be near the theatre, the music-hall, the cinematograph show, the public swimming bath, the park, and all other attractions that a town can supply, by far the greatest of which are the human crowd and the bright and busy aspect of the town itself."[173]

Against this background of praise for the cultural variety of the city, all attempts to disseminate the population and to dissolve the continuous urban fabric became questionable: "This method of living in sparsely scattered homes is profoundly unnatural. There is no need for every house to be isolated as if the whole world were a fever hospital."[174] As a result of this dissemination process, the suburbs emerged, for Edwards the product of lower-middle-class narrow-mindedness: "The very word 'suburban' implies something that is second-rate, some narrow and pharisaical attitude of mind."[175] What is more, the incarnation of suburban lack of character was the Garden City: "But of all suburbs, perhaps the most shoddy and depressing is the typical Garden Suburb. It has neither the crowded interest of the town nor the quiet charm of the country. It gives us the

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[171] Brook Kitchin, "An 1832 Town-Planning Scheme for Westminster", in: *The Architectural Review*, vol. 32, 1912, pp. 251-254.

[172] A Trystan Edwards, "A Criticism of the Garden City Movement", in: *The Town Planning Review*, vol. 4, no. 2, 1913, pp. 150-157, quote p. 154.

[173] A Trystan Edwards, "A Criticism of the Garden City Movement", in: *The Town Planning Review*, vol. 4, no. 2, 1913, pp. 150-157, quote p. 154.

[174] A Trystan Edwards, "A Criticism of the Garden City Movement", in: *The Town Planning Review*, vol. 4, no. 2, 1913, pp. 150-157, quote p. 154.

[175] A Trystan Edwards, "A Criticism of the Garden City Movement", in: *The Town Planning Review*, vol. 4, no. 2, 1913, pp. 150-157, quote p. 154.

advantages neither of solitude nor of society."[176] Inverting Ebenezer Howard's ideal of combining the advantages of town and country into the new town-country-entity of the Garden City, he observed that, on the contrary, the ordinary garden suburb simply combined the disadvantages. This resulted in "the monotonous diffuseness of Garden Cities."[177]

He furthermore inverted the utopian and futuristic aspects of the Garden City ideal by labelling the ideal of rural living as a retrogressive romantic vision: "The promoters of garden cities promise to their clients a rustic environment which cannot be had under the circumstances, and the attempts to maintain the fiction of rusticity, when the conditions of rusticity are absent, is responsible for a type of development which does not deserve to be called modern or advanced, but is, in effect, rank retrogression, a sinking back to the primitive hut configuration that preceded the era when men were capable of continuous architecture."[178] This sinking back to a lower level of cultural evolution became obvious in the prevalence of green: "The greenery, by being made subordinate to the works of man, enhances their beauty. But in a 'Garden City' the garden comes first, and the city comes afterwards. This is retrogression."[179] In the view of Edwards, not continuing the cultural achievements of city life but dreaming of re-embedding life into nature was not the path to follow into a modern and civilised society.

In consequence, he thought it necessary that cities should be designed and built by people who appreciate their qualities, and not by people who disdain urban culture: "It is a dangerous thing when people set about to build a town without perceiving the particular virtue and beauty that appertain to towns."[180] City builders and inhabitants should instead think about "the mighty achievements which the word 'city' should call to mind".[181] Edwards' programme for future urban design was carried by an urban spirit, demanding the continuation of existing cities and the

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[176] A Trystan Edwards, "A Criticism of the Garden City Movement", in: *The Town Planning Review*, vol. 4, no. 2, 1913, pp. 150-157, quote pp. 154-155.
[177] A Trystan Edwards, "A Further Criticism of the Garden City Movement", in: *The Town Planning Review*, vol. 4, no. 4, 1913, pp. 312-318, quote p. 318.
[178] A Trystan Edwards, "A Further Criticism of the Garden City Movement", in: *The Town Planning Review*, vol. 4, no. 4, 1913, pp. 312-318, quote p. 317.
[179] A Trystan Edwards, "A Criticism of the Garden City Movement", in: *The Town Planning Review*, vol. 4, no. 2, 1913, pp. 150-157, quote p. 156.
[180] A Trystan Edwards, "A Criticism of the Garden City Movement", in: *The Town Planning Review*, vol. 4, no. 2, 1913, pp. 150-157, quote p. 156.

foundation of new cities – not town-country-hybrids: "Let us increase our towns and build new ones, rather than, in our hatred of what is evil in our towns, become blind to their innumerable virtues!"[182] The evils of the town should be cured, and not the town be killed because of its evils.

Seeing urban life as a specific cultural achievement, it was obvious that urban dwelling also demanded a specific culturally inspired design. In another article, Edwards made clear that the improvement of housing was not only a sanitary or technological task, but also had to address cultural issues: "For even if we assume that our new habitations have light and air, and sufficiency of them has been provided, the resultant architecture might still be lacking in a certain spiritual attribute which is essential to its dignity."[183] In his view, this dignity of housing – achieved by architecture which aimed at more than the simple fulfillment of practical functions, namely the expression of ideas and values – had not yet been achieved in contemporary dwelling projects. It can be assumed that he considered there to be a lack of a specifically urban and civic expression both in the typology and the architectural treatment of the facades of existing housing.

Edwards was certainly not alone in this opinion. The former president of the RIBA Thomas E. Collcutt also understood urban life as a specific cultural achievement and argued against further suburbanisation in a lecture at the RIBA in 1921: "The tastes and preferences of the Londoner as compared with those of the country-born cannot be ignored. [...] There is no doubt that a very large proportion of Londoners would rather live in London than in the country or the suburbs. 'The man who is tired of London is tired of life.' There are tens of thousands who think as Dr. Johnson thought. 'Live in the country?' cried a cockney. 'Oh, give me the Clapham Road and the buses.'"[184] Urbanites – from whatever class they came from – should be treated as urbanites and not be confused with peasants or landlords. Urban life thus needed appropriate urban dwellings.

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[181] A Trystan Edwards, "A Further Criticism of the Garden City Movement", in: *The Town Planning Review*, vol. 4, no. 4, 1913, pp. 312-318, quote p. 316.
[182] A Trystan Edwards, "A Further Criticism of the Garden City Movement", in: *The Town Planning Review*, vol. 4, no. 4, 1913, pp. 312-318, quote p. 313.
[183] A. Trystan Edwards, "How to Popularise Civic Design", in: *The Town Planning Review*, vol. 9, no. 3, 1921, pp. 139-146, quote p. 140.
[184] Thomas E. Collcutt, "The Improvement of London: The Slums of Inner London and the Housing Problem", in: *Journal of the Royal Institute of British Architects*, vol. 27, 3rd series, 1921, pp. 130-139, quote p. 132.

In the 1920s and 1930s, the LCC continued in building inner urban estates, clearing slum areas on a growing scale. The East Hill Estate in Wandsworth (1924-29), designed by G. Topham Forrest, covered several old urban blocks and re-arranged them in a new way (figs. 60, 61).[185] However, the intention was not to break the pattern of the existing city. The new layout respected essential characteristics of the existing city and simply aimed to improve the neighbourhood by introducing some other traditional urban design elements such as streets, squares, *courts d'honneurs*, internal streets, passageways and courtyards. Moreover, the architecture with its simplified Georgian design and facades in brick with some stone details also aimed to closely follow the city's architectural tradition. Once again, the neighbourhood was conceived as a multifunctional unit and contained, apart from the 524 dwellings, seven shops and several workshops, making it comparable to traditional city quarters. Nevertheless, the new scale of the superblock and the uniformity of the design brought a new character to the city and achieved the "dignity" of urban housing which Edwards had been waiting for.

An increased monumentality, most probably inspired by Viennese examples such as the Reumannhof, characterised the Ossulston Estate in St. Pancras (1926-37) by G. Topham Forrest. The new blocks not only featured arches in the garden courts but also a well staged main block, set back from the street with an effective *court d'honneur* and adorned with a gallery of arches. The buildings with its 514 dwellings fitted well into the existing street pattern and also housed a maternity and child welfare centre, shops, barrow sheds, estate offices and workshops. As the existing school and church remained on the grounds, the new estate formed a complete neighbourhood. A more autonomous attitude, again comparable to Viennese examples such as the *Hof* Am Fuchsenfeld, was displayed in the China Walk Estate in Lambeth (1928-34) by G. Topham Forrest.[186] Within the existing neighbourhood, several streets were closed and the new buildings were grouped around formal garden courts, open to the street. However, due to the fact that both the new buildings and new spaces had a clear relationship with the surrounding public street, they did not destroy the spatial definition of the public urban space, but rather added several new elements.

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[185] The Building Centre Committee (ed.), *Housing. A European Survey*, Vol. 1, London: The Rolls House Publishing Co, 1936.

[186] The Building Centre Committee (ed.), *Housing. A European Survey*, Vol. 1, London: The Rolls House Publishing Co, 1936.

The qualities of LCC estates from the 1920s were widely appreciated. The German journal *Der Städtebau* reported on "London's Regeneration Works" in 1926,[187] and Grey Wornum praised the achievements of LCC estates as superior to other European housing developments in the RIBA journal in 1931: "I hold that nowhere in the world to-day is such a high standard of housing maintained as by this great London body. We have all heard talked of so much the attractions of the Vienna housing, the originality and ambition of the German housing, the quaintness of the Dutch housing, that we have left very much unsung the saneness of the English housing."[188] He also underlined the speciality of London housing to be mostly located within the city – something which in fact distinguished it from avantgardist German and Dutch projects, but which was certainly also true for most of the *Höfe* in Vienna.

The Housing Act of 1930 facilitated the possibilities of introducing new housing projects into an existing urban context defining so-called "improvement areas" where no wholesale clearance was necessary, but just the demolition of some buildings and the improvement of others.[189] LCC estates continued in using reformed block typologies and a simplified Georgian architecture to produce appropriate inner urban dwelling quarters such as the Vauxhall Gardens Estate in Lambeth (1935) and the Rockingham Estate in Southwark (1936), both designed by E. P. Wheeler. The development at the Wandsworth Road Site in Wandsworth, where planning for 1,032 dwellings by E. P. Wheeler started in 1935, again included urban amenities such as a complete row of shops arranged at the ground floor level of the block facing Wandsworth Road.[190] The LCC no longer restricted its housing policy to social housing but also experimented with developments at higher rent levels such as Glebe Place in Stoke Newington (1936-37) by Edward Armstrong.[191]

The ambitions of LCC's pre-World War Two housing programme are outlined in the official publication on *London Housing* in 1937. Even though this pamphlet was published in the late

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[187] Jürgen Brandt, "Londoner Sanierungsarbeiten", in: *Der Städtebau*, vol. 21, 1926, pp. 187-192.
[188] Grey Wornum, "Modern Flats", in: *Journal of the Royal Institute of British Architects*, vol. 38, 3rd series, 1931, pp. 435-455, quote p. 435.
[189] London County Council, *London Housing*, London: LCC 1937, p. 10.
[190] London County Council, *London Housing*, London: LCC 1937, pp. 108-109.

1930s, it still demonstrates the prevalence of urban tenements over suburban detached houses. 60 pages deal with the "Development of cottage estates", but 80 pages with the "Development of estates by the erection of block dwellings". The final list places an even greater emphasis on the block developments. Here, 20 "Cottage estates" are overshadowed by 173 "Block Dwellings" which means that 90% of all the projects developed by the LCC since 1893 were inner urban tenements. The report underlined that the typology of the reformed block enabled the same population density as the so-called overcrowded slums, but with improved sanitary conditions: "By building blocks of dwellings five storeys high it is generally possible [...] to provide on the same area as that from which the old buildings have been cleared as those displaced by the clearance and at the same time to leave ample space about the buildings for light and air as well as for necessary courtyards."[192] The report also explicitly mentioned the pro-urban approach of the new developments, not designed as autonomous units but as a part of the city respecting its context: "The lay-out is largely controlled by such factors as the orientation of the main axis of the site, the irregularity of its boundaries, and the character and height of adjoining property."[193] To continue the city and to improve it, not to break with its pattern and to destroy it: this was the urban concept of reform behind the modern London public housing programme.

Besides the public housing programme of LCC, several philanthropic institutions continued to create low-cost housing schemes. One of the largest was the Larkhall Estate, designed by Louis de Soissons and Grey Wornum in 1925 (figs. 62, 63). The well-adapted typology allowed for tripling the population density – the estate offered flats for 4500 people in an area which had previously been inhabited by a population of 1600 –[194] while, at the same time, introducing large green public spaces. The most interesting aspect was the mixture of flats and maisonettes within the buildings, cleverly arranged in such a way that nearly every flat or maisonette had an independent front door at ground level or leading to a balcony. Some flats even had roof gardens. These innovations – allowing for a broader social mixture by offering a wider range of dwelling types – were not celebrated in avantgardist design, but with well established types and styles. A contemporary critic praised the estate for having "a 'lay-out' of a most attractive character,

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[191] Edward Armstrong, "Flats: Glebe Place, Stoke Newington, N. 16", in: *Journal of the Royal Institute of British Architects*, vol. 45, 3rd series, 1938, pp. 544-547.
[192] London County Council, *London Housing*, London: LCC 1937. p. 38.
[193] London County Council, *London Housing*, London: LCC 1937, p. 38.

consisting of blocks of flats and maisonettes, surrounding large quadrangles having some of the character of the old inns of London or the college courts of Oxford and Cambridge."[195] The style of the facades in brick with its reference to 18th Century house architecture was interpreted as "a modernized Georgian design".[196]

Other examples by Louis de Soissons, well known for his plans for Welwyn, the second Garden City, include Newquay House in Kennington for the Duchy of Cornwall (1932) and Wilcove Place for the St. Marylebone Housing Association (1933-35).[197] Here again, the blocks with their formal courtyard-gardens offer a hybrid mixture of flats and maisonettes, accessed directly by front doors, by staircases or by balconies. All this is packed into a Georgian-style house designed and executed with a high level of quality.

Perhaps the most sophisticated design was achieved by Edwin Lutyens in his Grosvenor Housing Estate in Westminster (1930-33). He created an extremely dense inner-urban mass-housing estate, arranging 604 flats in 6 storey-buildings and thus achieving nearly double the number of flats to the acre compared to other schemes. The repetitive character of mass-housing was even reinforced by the recurrent design of the facades. The alternation of brick and plaster rectangles results in a checkerboard pattern which seems to be a sarcastic comment by the aristocrat's architect on modernist mass-housing-schemes. Nevertheless, this bold pattern was balanced by the refined design of the classical housing entrances and especially by the pavilions which are located between the tenements. They definitively bring a countryside atmosphere to the estate – not a rural feeling, but the *flair* of an aristocratic country house by mimicking gatehouses of a country estate – despite the fact that they contain shops. Furthermore, the opening of the U-shaped buildings towards the street creates an interesting juxtaposition of entrance courts and garden courts and was meant "to allow the sunlight to get between them."[198]

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[194] Theodore Chambers, "The Larkhall Estate", in: *The Architectural Review*, vol. 66, 1929, pp. 7-16, quote p. 8.
[195] Theodore Chambers, "The Larkhall Estate", in: *The Architectural Review*, vol. 66, 1929, pp. 7-16, quote p. 8.
[196] Theodore Chambers, "The Larkhall Estate", in: *The Architectural Review*, vol. 66, 1929, pp. 7-16, quote p. 10.
[197] Louis de Soissons, "Tenements, Wilcove Place, St. Marylebone, N.W.1", in: *Journal of the Royal Institute of British Architects*, vol. 41, 3rd series, 1934, pp. 1016-1020.
[198] J. Fletcher, "Kensington Builds for the Poor", in: *The Architectural Review*, vol. 75, 1934, pp. 82-86, quote p. 85.

These urban working class dwellings projects were accompanied by a critical discourse in architectural journals and conferences. The now well established opposition between suburban cottages and metropolitan tenements was questioned by F. X. Velarde in an article with the telling title "A Choice of Evils" in 1929. Nevertheless, to avoid the further development of estates with detached houses which would finally result in ruining the countryside, he advocated more dense dwellings. His vision of the future city consisted of "great apartment houses, cool and spacious, thoughtfully planned and ranged in groups."[199]

In an article published in 1937, Elizabeth Denby used social survey methods to analyse the situation in working class housing. She criticised both suburban houses and urban flats, reporting typical answers from tenants who complained about "isolation, loneliness, boredom, expense, in the cottage estates; lack of privacy, noise, inconvenience, a 'barrack' atmosphere, expense, in the flats."[200] To avoid these disadvantages she called for a more dense typology than detached houses and a more homely typology than tenements. She found this ideal synthesis in terraced houses – a well established English typology – and proposed a return to this type of construction. Besides all the criticism of barrack-like tenements, her major disagreement was with low-density developments. She heavily criticised the monofunctional character of cottage suburbs, commenting on an aerial photograph: "A typical new working-class estate on the outskirts of a city, isolated from the normal life of the town. [...] Although these estates are often the size of a town, they are purely dormitory and contain no facilities for companionship."[201] Furthermore, long before the extension of urban sprawl became reality in the 1950s or ecological motives became relevant in the 1970s, she emphasised the value of landscape as opposed to cities: "In view of the possibility of a decreasing population of this country, it would be a real waste of public money to continue to create suburbs which may in twenty years be unoccupied, or to allow each town to trail a vast fringe of new houses over the surrounding country while its rotten heart

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[199] F. X. Velarde, "A Choice of Evils", in: *The Town Planning Review*, vol. 13, no. 3, 1929, pp. 185-187, quote p. 186.

[200] Elizabeth Denby, "Rehousing from the Slum Dweller's Point of View", in: *Journal of the Royal Institute of British Architects*, vol. 44, 3rd series, 1937, pp. 61-80, quote p. 63.

[201] Elizabeth Denby, "Rehousing from the Slum Dweller's Point of View", in: *Journal of the Royal Institute of British Architects*, vol. 44, 3rd series, 1937, pp. 61-80, quote p. 71.

stands empty."[202] The advantages of dense cities were thus clear long before they were rediscovered in the 1980s under the banner of sustainability.

A similar position was then promoted by A. Trystan Edwards in his study on *Modern Terrace Houses. Researches on High Density Development* in 1946. There his task had been "to investigate the question of the maximum 'density' per acre for small houses with gardens suitable especially for the intermediate and outer zones of large towns".[203] His personal aim was to avoid "'open development' and architectural sprawl",[204] and therefore he developed models for two- to three-storey terraced houses arranged in urban quarters and linked to open spaces. His intention was to create well-designed, uniform and harmonious streets by referring back to the tradition of terraced houses. His planning standards "would not only make possible a large variety of street houses of modern type, but would help to safeguard such examples of good urban domestic architecture as we have derived from the past."[205]

The block typology was not only used inventively for social housing. On the contrary, a specific push for ever increased density and more metropolitan character came from commercial luxury residential developments. In such cases, the use of elevators was economically viable and thus buildings reached heights of up to ten storeys, allowing for a higher exploitation of the available ground while still fitting into the existing urban fabric. Quite often these new apartment blocks included a broad range of services, thus leading to the creation of multifunctional buildings. Devonshire House Buildings, erected by Carrère & Hastings and Charles Herbert Reilly in 1925-26 in Piccadilly, was such an inner city apartment building with shops at ground floor level and "a courtyard into which you could drive, with sunken gardens, and restaurants underground".[206] Its eight storeys were carefully inserted into London's urban fabric. The corner blocks were in proportion with the height of the surrounding buildings, while the higher central block was set

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[202] Elizabeth Denby, "Rehousing from the Slum Dweller's Point of View", in: *Journal of the Royal Institute of British Architects*, vol. 44, 3rd series, 1937, pp. 61-80, quote p. 66.

[203] A. Trystan Edwards, *Modern Terrace Houses. Researches on High Density Development*, London: Tiranti 1946, p. 3.

[204] A. Trystan Edwards, *Modern Terrace Houses. Researches on High Density Development*, London: Tiranti 1946, p. 4.

[205] A. Trystan Edwards, *Modern Terrace Houses. Researches on High Density Development*, London: Tiranti 1946, p. 23.

[206] Thomas Hastings, "Devonshire House Buildings", in: *Journal of the Royal Institute of British Architects*, vol. 34, 3rd series, 1927, pp. 567-579, quote p. 577.

further back, also offering "extra corner rooms for light and air in the apartments."[207] The architects deliberately adapted the building to its surroundings not only in terms of its dimensions, but also in terms of style: "We all agreed that we would build as much as possible in a style which would seem to be modern and, at the time, related to the traditions of our immediate ancestors [...]. We naturally drifted into what, perhaps, might be called the period of the English revival of Italian classicism in the early nineteenth century."[208] The modern apartment house was simply the logical development of architectural and urban traditions.

The 1930s saw the development of the monumental modern apartment house. Gordon Jeeves's Latymer Court in Hammersmith (1935) was praised as "Europe's largest single block of flats".[209] While its dimensions – up to nine storeys high and about 200 metres long - set new standards, urban typology and architectural style followed well established traditions. The extremely long building strictly followed the street line and offered an uninterrupted row of shops on the ground floor, while the facade in brick with stone cladding on the two lower storeys was designed in a simplified Georgian manner. The influence of international modernism – especially the horizontal dynamism of Erich Mendelsohn – is visible in John Burnet, Tait and Lorne's Mount Royal in Oxford Street (1935) (fig. 64). Here, a huge nine storey-block of "Mass-Produced Shelter" seemed to celebrate modern industrial housing production with a uniform and repetitive design and an emphasis on horizontal ribbons. However, this modernist aspect was integrated into a well established approach to urban building. The block fitted into the street pattern, the facade was constructed in the traditional local material of brick and the ground floor housed a complete row of shops. Further innovations were hidden behind the facade. With its single- and two-room flats, the building followed the typology of American apartment hotels, including a broad range of services on the first floor. These created new sorts of internal public spaces "which, with lounge, restaurant, snack bar, newspaper and tobacco shops, barber's shop, pillar

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[207] Thomas Hastings, "Devonshire House Buildings", in: *Journal of the Royal Institute of British Architects*, vol. 34, 3rd series, 1927, pp. 567-579, quote p. 576.
[208] Thomas Hastings, "Devonshire House Buildings", in: *Journal of the Royal Institute of British Architects*, vol. 34, 3rd series, 1927, pp. 567-579, quote p. 575.
[209] Publicity in: *The Architectural Review*, vol. 77, 1935, p. XVI.

boxes, offices and delicatessen store, amount to what is in effect a private town."[210] The urban block had mutated into a city within the city – but still respecting the public outdoor space.

The hybrid amalgamation of flat and house – already analysed in social housing – can also be found in luxury developments. Westminster Gardens in Westminster by T. P. Bennett & Son (1936) combined a series of maisonettes – arranged like terraced houses on ground level – with flats within a huge ten-storey building.[211] The design of the facade reflected this specific arrangement. While the generic flats were located behind brick, the maisonettes were distinguished with stone cladding which could simultaneously be read as the base of the entire building. Franc Scarlett's Ormonde Court in Putney (1936) addressed the challenge of car traffic in an innovative manner. To allow car access to all entrances and to nevertheless create a silent recreational space, he surrounded his block of 120 flats with a service road, a modernised mew or lane. He thus kept the internal green courtyard, which all the living rooms and bedrooms faced, free from traffic and noise.[212]

The step-by-step evolution of these new apartment houses out of the existing city – a reform process instead of a revolutionary break – can best be observed in Portland Town. Here, just at the northern edge of Regent's Park, several new blocks of six- to eight-storey apartment buildings were erected between 1936 and 1938. These blocks, despite their architectural, sanitary or technological inventions, have been interpreted by contemporary critics as a continuation of a specific local tradition: "Along Prince Albert Road blocks of flats have been built to house a section of contemporary society corresponding to that which occupied Nash's terraced houses on the other roads that bound Regent's Park."[213] While the new apartment blocks seemed to continue the tradition of the famous terraces, the neighbourhood itself displayed a traditional mixture of social classes and functions which was praised as "an excellent example of 'mixed development'".[214]

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[210] Francis Lorne, E. Maxwell Fry, "Mass-Produced Shelter", in: *The Architectural Review*, vol. 77, 1935, pp. 11-19, quote p. 11.

[211] *The Architectural Review*, vol. 80, 1936, pp. 210-211.

[212] *The Architectural Review*, vol. 80, 1936, pp. 30-31.

[213] Ralph Parker, "Shutters up in Portland Town", in: *The Architectural Review*, vol. 83, 1938, pp. 286-295, quote p. 287.

[214] Ralph Parker, "Shutters up in Portland Town", in: *The Architectural Review*, vol. 83, 1938, pp. 286-295, quote p. 293.

The climax of a monumental metropolitan apartment building was reached by Gordon Jeeves's Dolphin Square in Westminster (1937) (figs. 65, 66). A large perimeter block extended between two public and two private streets, creating a spacious internal formal garden and two monumental facades. The main facade of ten storeys towards the river Thames celebrates the urbanity of housing, forming a massive wall where the repetition of the windows underlines the unity of the complex while the alternation of brick and stone subdivides the complex into horizontal and vertical units – into houses and storeys. Three arches mark the entrance to the court, recalling classical triumphal arches. The facade towards the neighbourhood street only extends to six storeys and therefore the block integrates well into the urban fabric. Within the courtyard, the protruding wings with their set-back-storeys convey the image of towers, thus further enhancing the monumentality within the complex. The block not only contained 1,236 flats, but also included all the necessary amenities such as a sports centre with a swimming pool, an underground garage and a shopping gallery.[215]

Such "Examples of Urban Flats in England"[216] represented the achievement of a metropolitan ideal which Charles Herbert Reilly had envisaged in his Roscoe lecture in 1934 entitled "The Body of the Town" and ran contrary to all the tendencies towards dissolving the city. As a future ideal, he had imagined "not a garden city with all that that implies in pettiness and snobbishness and the village outlook, but what I think is a far finer conception, a city planted in a park."[217] This city should not consist of small detached houses, but of five- to ten-storey tenement blocks. Dolphin Square can be regarded as an ideal specimen of such "tenement buildings, which might without any extra expense be simple, noble structures with no ornament but of fine shapes like the Viennese ones."[218] Thus, London had become a place where metropolitan housing typologies provided what Reilly had called "an adequate urban life".[219]

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[215] *The Architectural Review*, vol. 83, 1938, pp. 133-134.

[216] Bernard Friedman (ed.), *Flats. Municipal and Private Enterprise*, London: Ascot Gas Water Heaters LTD, 1938, p. 65.

[217] Charles Herbert Reilly, "The Body of the Town", in: *The Town Planning Review*, vol. 16, no. 2, 1934, pp. 89-107, quote p. 101.

[218] Charles Herbert Reilly, "The Body of the Town", in: *The Town Planning Review*, vol. 16, no. 2, 1934, pp. 89-107, quote p. 101.

[219] Charles Herbert Reilly, "The Body of the Town", in: *The Town Planning Review*, vol. 16, no. 2, 1934, pp. 89-107, quote p. 100.

If London was the centre of metropolitan development in Great Britain, it certainly was not the only place where reformed perimeter blocks were constructed. The case of Glasgow, "the tenement city" par excellence,[220] can be used to highlight the fact that the reformed perimeter block was by no means invented around 1900, but was firmly rooted in enlightened urban design of the 18th Century. Glasgow's first new town plan from 1782 by James Barry showed a pattern of large residential perimeter blocks around George Square, which was then repeated within the Blythswood new town.[221] During the 19th Century, the pattern of rectangular tenement blocks, usually four storeys high and containing shops on the ground floor towards major streets, was used for both middle-class and workers' dwellings.[222] As legislation did not allow for internal wings, all of these blocks were characterised by large internal courtyards which in most cases had been planted. In the working class neighbourhoods, these blocks were designed as units closed on all sides, the most uniform areas being Hutchesontown, Govanhill and Dennistoun, all developed during the 1870s and 1880s. In the middle-class neighbourhoods, the block was often subdivided by a lane, thus combining the higher model of the terrace with the lower model of the block. Exemplary areas include Woodlands and Hyndland, with the latter being built according to James Barr's plan between 1897 and 1910 as a wealthy Edwardian tenement quarter with most of the buildings by John Campbell McKellar, including a central green square, tree lined streets and green courts (fig. 67).[223] Exemplary cooperative housing schemes included John J. Burnet's Cathedral Court (1892) and Greenhead Court (1897-99), both erected for the Glasgow Workmen's Dwelling Company with balcony access and Scottish vernacular forms.[224] Thus in Glasgow the tenement block with a large courtyard followed a long-lasting tradition and helped to create a city with dwelling quarters which were both extremely urban and pleasant.

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[220] Peter Reed, "The Tenement City", in: Peter Reed (ed.), *Glasgow. The Forming of the City*, Edinburgh: Edinburgh University Press 1993, pp. 105-129. Cf. John Cockburn, *Tenement. A Novel of Glasgow Life*, Edinburgh: William Blackwood 1925.

[221] Frank Arneil Walker, "Glasgow's New Towns", in: Peter Reed (ed.), *Glasgow. The Forming of the City*, Edinburgh: Edinburgh University Press 1993, pp. 24-40.

[222] Frank Worsdall, *The Tenement. A Way of Life. A Social, Historical and Architectural Study of Housing in Glasgow*, Edinburgh: Chambers 1979.

[223] Ann Laird, *Hyndland. Edwardian Glasgow Tenement Suburb*, Glasgow: Reproprint 1997.

[224] Frank Worsdall, *The Tenement. A Way of Life. A Social, Historical and Architectural Study of Housing in Glasgow*, Edinburgh: Chambers 1979, pp. 112-117.

Manchester as another centre of industrialisation offered early examples of workers' housing reform. The square perimeter block in Oldham Road by Spalding & Cross for the Manchester Corporation (1893) created an internal recreational courtyard with a playground for children as well as shops at the ground floor level towards Oldham Road (fig. 68).[225] Comparable to the attempts in LCC's social housing, the architect Henry Spalding underlined the role of aesthetics despite all the financial restraints: "We cannot as a rule spend much money in ornamentation of any kind, but by a judicious use of the materials at our disposal a good effect can always be obtained."[226]

The most comprehensive inner urban redevelopments with tenemental blocks were carried out in Liverpool.[227] The industrious L. H. Keay, Liverpool's city architect, erected a series of quite functionalist but well-designed urban tenements. St. Andrew's Gardens (1932-35) with its 366 flats arranged in five-storey buildings became the most famous because of its monumental exedra, "noteworthy for the 'horseshoe' plan" (fig. 69).[228] Between 1933 and 1939 several other blocks followed, including Speke Road Gardens, Caryl Gardens, Warwick Gardens, culminating in the comprehensive scheme for Gerard Street Redevelopment.[229] These estates mostly operated with north-south-oriented bars, and thus followed the model of avantgardist German housing estates. But, unlike the estates in Germany, the bars followed the street line and thus still produced architecturally defined public spaces. Most of these blocks also followed a multifunctional concept and included shops cleverly arranged at the corners. Keay was a keen advocate of dense inner urban housing quarters and opposed the idea that only Garden Cities could solve the housing question. In an article in 1936, he declared "that a satisfactory solution of this phase of the housing problem is not to be found in the further development of suburban

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[225] Henry Spalding, "Block Dwellings: The associated and Self-Contained Systems", in: *Journal of the Royal Institute of British Architects*, vol. 7, 3rd series, 1900, pp. 253-260.

[226] Henry Spalding, "Block Dwellings: The associated and Self-Contained Systems", in: *Journal of the Royal Institute of British Architects*, vol. 7, 3rd series, 1900, p. 255.

[227] City of Liverpool (ed.), *Housing with Particular Reference to the More Recent Post-war Development and Schemes for the Clearance of Unhealthy Areas*, Liverpool 1928.

[228] L. H. Keay, "Slum Clearance in Liverpool. The St. Andrew's Gardens Rehousing Scheme", in: *Journal of the Royal Institute of British Architects*, vol. 42, 3rd series, 1935, pp. 1136-1141, quote p. 1137.

[229] L. H. Keay, "Redevelopment of Central Areas in Liverpool", in: *Journal of the Royal Institute of British Architects*, vol. 46, 3rd series, 1939, pp. 293-298. "Flats at Liverpool", in: *The Architectural Review*, vol. 85, 1939, pp. 196-197.

estates."[230] He saw inner urban housing as a different task which had to be solved in a specific way: "The garden city developments at Letchworth and Welwyn, both with their easily accessible rural belts, invoke the admiration of all who visit them, but is it less possible to raise an A1 community in a properly planned township of flats than in a garden city or suburb?"[231] His blocks in Liverpool can be understood as his answer to the question of creating inner urban A1 communities.

8. New York and the United States

Uncontrolled capitalistic development had created extremely poor housing conditions in New York during the 19th Century. The ordinary lots in the Manhattan block could be built up to 90 percent, producing the notorious railroad flats where most of the rooms had no direct light and some even lacked ventilation. Compared to this, the notorious *Berliner Zimmer* – a room at the corner of the courtyard with just one window – could almost be considered palatial. Several pieces of legislation were put into place, but only the 1901 Tenement House Act enforced the enlargement of air shafts to courtyards and the unification of all internal courts in a single space. Nevertheless, these courts were still quite narrow and the blocks still denser than any European development.

Even in the context of existing urban overcrowding and a Thoreau-inspired romantic vision of natural life, there were voices of praise and admiration for urban life. In 1871, *Appleton's Journal* argued against the spread of population into detached family homes in suburbs by emphasising the advantages of the city: "A rich, specific, and munificent life arises from the compactness of settlement in cities, which diffusion and distribution would more or less impair. The opera and the theatre, the club, the reading room, the library, the art-gallery, the concert, the ball, the brilliancy and animation of the promenade, the inspiring contacts of crowds, the magnetism of

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[230] L. H. Keay, "Housing and the Redevelopment of Central Areas", in: *Journal of the Royal Institute of British Architects*, vol. 43, 3rd series, 1936, pp. 57-74, quote p. 57.
[231] L. H. Keay, "Housing and the Redevelopment of Central Areas", in: *Journal of the Royal Institute of British Architects*, vol. 43, 3rd series, 1936, pp. 57-74, quote p. 60.

intercourse – all of these things largely depend upon neighborhood."[232] Urban dwelling was a prerequisite for urban culture.

Within the context of economic profit, block reform could only evolve in two fields where money was no concern - in philanthropic non-profit housing and in luxury apartment dwellings. The most generous perimeter arrangements with landscaped gardens in the courtyard were the Tower Buildings (1878-79) and the Riverside Buildings (1890) in Brooklyn, both designed by William Field and Son as philanthropic projects for Alfred Treadway White (fig. 70).[233] The six-storey buildings only covered 50 percent of the ground and created similar conditions to the traditional block with terraces. An influential model for the improvement of lighting and ventilation for tenements on ordinary lots was invented by Beaux-Arts trained architect Ernest Flagg, published in *Scribner's Magazine* in 1894 (fig. 71).[234] His new tenement covered four lots and was laid out around an enlarged central square court. His design won the first prize in the "Competition for Plans of Model Apartment Houses" by the Improved Housing Council in 1896,[235] and he was finally able to implement his idea with the Clark Buildings at 68th Street for the City and Suburban Homes Company as a philanthropic housing project in 1898.[236]

The growth of perimeter blocks with ever larger courtyards and higher standards can be observed in luxury flat developments. While The Dakota in Central Park, designed by Henry J. Hardenbergh in 1882 and completed in 1884, still had a fairly narrow central court according to Parisian models,[237] Graham Court in 7th Avenue, designed by Clinton and Russell and completed

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[232] "Table-Talk" in: *Appleton's Journal*, vol. 4, 2nd December 1871, p. 638; quoted after: Richard Plunz, *A History of Housing in New York City. Dwelling Type and Social Change in the American Metropolis*, New York: Columbia University Press 1990, p. XXX.

[233] Alfred Treadway White, *The Riverside Buildings of the Improved Model Dwelling Company*, New York: Improved Model Dewlling Co. 1890; Richard Plunz, *A History of Housing in New York City. Dwelling Type and Social Change in the American Metropolis*, New York: Columbia University Press 1990, pp. 108-110; Robert A. M. Stern, Thomas Mellins, David Fishman, *New York 1880. Architecture and Urbanism in the Gilded Age*, New York: The Monacelli Press, 1999, pp. 871-874, 878-883.

[234] Ernest Flagg, "The New York Tenement House Evil and Its Cure", in: *Scribner's Magazine*, vol. 16, 1894, pp. 108-117; Richard Pommer, "The Architecture of Urban Housing in the United States during the Early 1930s" in: *Journal of the Society of Architectural Historians*, vol. 37, 1978, pp. 235-264, 257, 260.

[235] Richard Plunz, *A History of Housing in New York City. Dwelling Type and Social Change in the American Metropolis*, New York: Columbia University Press 1990, pp. 41-43.

[236] Richard Plunz, *A History of Housing in New York City. Dwelling Type and Social Change in the American Metropolis*, New York: Columbia University Press 1990, p. 99.

[237] Robert A. M. Stern, Thomas Mellins, David Fishman, *New York 1880. Architecture and Urbanism in the Gilded Age*, New York: The Monacelli Press, 1999, pp. 561-565.

in 1901, incorporated a remarkable planted courtyard in the centre while the exterior was designed as a block-like Italian Renaissance Palazzo.[238] Finally, The Belnord in Broadway by H. Hobart Weekes (1908-10) covered an entire urban block and contained a huge landscaped court (figs. 72-73). Its 13-storey structure was nearly three times as high as European models such as tenements from the Vienna Ringstrasse on which its Italian Palazzo style was based.[239]

270 Park Avenue was erected by Warren & Wetmore in 1918 on an even larger block (fig. 74).[240] This luxury twelve-storey apartment block with its arcades surrounding the internal courtyard was published in Werner Hegemann and Elbert Peets' "American Vitruvius".[241] McKim, Mead & White adapted this model to the motor age. At 277 Park Avenue (1925), the large internal planted court, again surrounded by an arcade, was open to the street via four arches and could be accessed by cars. The entrances to the apartments were located in the court, while the entire front towards the streets was used for shops. The RIBA Journal especially appreciated the aesthetic qualities of this housing development: "This scheme impresses one most by its extraordinary simplicity and sense of unity."[242] The London Terrace Apartments in 9th Avenue by Farrar & Watmaugh (1930) represent perhaps the most dense luxury development. Its extreme density with 1,670 apartments over 20 storeys and only a fairly small court was compensated by luxury facilities such as a swimming pool and a rooftop clubhouse. Furthermore, the block contained shops, restaurants and all sorts of housekeeping services, providing an entire neighbourhood within the city.[243]

The 1920s saw the elaboration of the reformed urban block and the creation of what was known as the "garden apartment" for the low-cost housing sector. One of the leading figures in this trend was architect Andrew J. Thomas, who had already invented an urban block with 14 U-shaped

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[238] Andrew Alpern, *Apartments for the Affluent. A Historical Survey of Buildings in New York*, New York: McGraw Hill, 1975, p. 26-27; Richard Plunz, *A History of Housing in New York City. Dwelling Type and Social Change in the American Metropolis*, New York: Columbia University Press 1990, pp. 78-83.

[239] Andrew Alpern, *Apartments for the Affluent. A Historical Survey of Buildings in New York*, New York: McGraw Hill, 1975, p. 50-51.

[240] Robert A. M, Stern, Gregory Gilmartin, Thomas Mellins, *New York 1930*, New York: Rizzoli 1987, pp. 417.

[241] Werner Hegemann and Elbert Peets, *The American Vitruvius. An Architects Handbook of Civic Art*, New York: Architectural Book Publishing 1922, pp. 194-195.

[242] William T. Benslyn, "Recent Developments in Apartment Housing in America", in: *Journal of the Royal Institute of British Architects*, vol. 32, 3rd series, 1925, pp. 504-519, 540-551, quote p. 519.

[243] Robert A. M, Stern, Gregory Gilmartin, Thomas Mellins, *New York 1930*, New York: Rizzoli 1987, pp. 417.

buildings around a common internal garden as a model project for the New York State Reconstruction Commission in 1919 (fig. 75).[244] This specific arrangement was the result of a careful analysis of building configurations in order to minimise cost while maximising light and air. In 1920, he realised this model at Linden Court in Jackson Heights for the Queensboro Corporation, followed by several other developments.[245] Apart from all the sanitary advantages, a critic in the RIBA journal reserved special praise for the aesthetic results of Thomas' garden apartments: "These apartments, besides being well planned, are very pleasing in their architectural treatment."[246]

A significant example of the indented perimeter block was realised with the cooperative apartment complex at Van Cortland Park in the Bronx, designed by Springsteen and Goldhammer for the Amalgamated Clothing Workers Union and completed in 1927.[247] The highly indented six-storey buildings were arranged around a formal garden, forming courts towards the street and wings towards the court. Nevertheless, the main components of the building followed the street line and clearly marked the corners of the urban block. Numerous other cooperative housing projects also made reformed inner urban tenements affordable to the working class and the lower middle class and thus in 1929 a report on "The Housing Problem in the United States" in the *Town Planning Review* was able to identify "a trend away from the small individual home to the larger multiple-dwelling."[248]

The *Regional Plan of New York and Its Environs* operated as another field of experimental invention for metropolitan housing. Initiated by the Russell Sage Foundation in 1921 and supported by New York's Governor Franklin Delano Roosevelt, this project was led by the British town planner Thomas Adams and published in several volumes between 1929 and

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[244] Richard Plunz, *A History of Housing in New York City. Dwelling Type and Social Change in the American Metropolis*, New York: Columbia University Press 1990, p. 137.

[245] Richard Pommer, "The Architecture of Urban Housing in the United States during the Early 1930s" in: *Journal of the Society of Architectural Historians*, vol. 37, 1978, pp. 235-264, 258, 260.

[246] William T. Benslyn, "Recent Developments in Apartment Housing in America", in: *Journal of the Royal Institute of British Architects*, vol. 32, 3rd series, 1925, pp. 504-519, 540-551, quote p. 505.

[247] Richard Plunz, *A History of Housing in New York City. Dwelling Type and Social Change in the American Metropolis*, New York: Columbia University Press 1990, pp. 153-154.

[248] Lawrence Veiller, "The Housing Problem in the United States", in: *The Town Planning Review*, vol. 13, no. 4, 1929, pp. 228-256, quote p. 234.

1931.[249] The ideas to integrate tenement skyscrapers into the existing urban fabric are of particular interest. For example, Arthur Holden designed a block with perimeter buildings of standard height, but with a central tower which allowed for further increase in density without obstructing ventilation and lighting of public streets.[250] Within this context, Clarence Arthur Perry published his famous neighbourhood unit, a multifunctional urban quarter with housing blocks in which all key facilities were within walking distance.[251] Far from being a revolutionary model, it took its strength from the careful analysis of well functioning existing quarters in historic cities.

A continuous densification of perimeter block dwellings can be observed in three subsequent designs by the two most distinguished housing architects of the period, Clarence S. Stein and Henry Wright, just at the time when they started to develop Radburn as an anti-urban model community in 1927. They adopted the perimeter block for their design of Sunnyside Gardens in Queens, constructed between 1924 and 1928 as a low-cost development for the City Housing Corporation (fig. 76). Over 14 blocks, 1202 families were housed in two- to four-storey buildings with large central gardens for common use. The development provided a variety of types of houses and apartments. Despite its extremely low coverage of 28 percent which was only possible in this suburban location, the buildings were carefully arranged within the existing urban grid and followed the street line, clearly distinguishing between the public street and the semi-public courtyard. Furthermore, the uniformity brought an urban feeling into this suburban area and was deliberately planned to enhance the aesthetic quality, as the architect noted: "There is an architectural harmony at Sunnyside because of the common use of brick, as well as the repetition of simple details and the continuous roof lines."[252] Although Sunnyside Gardens promoted a more suburban lifestyle, it also typified the community ideals which were shared by its most famous inhabitant, Lewis Mumford.

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[249] Thomas Adams (ed.), *Regional Plan of New York and its Environs*, 2 vols., New York: Regional Plan of New York and Its Environs 1929-31; David A. Johnson, *Planning the Great Metropolis. The 1929 Regional Plan of New York and its Environs*, London: Spon 1996.

[250] Thomas Adams, *The Building of the City*, *Regional Plan of New York and Its Environs*, vol. 2, New York: Regional Plan of New York and Its Environs 1931; Thomas Adams, Edward M. Bassett, *Buildings: Their Uses and the Spaces about them*, New York: Regional Plan of New York and Its Environs 1931.

[251] Clarence Arthur Perry, *Neighborhood and Community Planning*, New York: Regional Plan of New York and Its Environs 1929.

[252] Clarence S. Stein, "Toward New Towns for America", in: *The Town Planning Review*, vol. 20, no. 3, 1949, pp. 203-282, quote p. 215.

The Phipps Garden Apartments just next to Sunnyside, which Stein and Wright constructed between 1929 and 1931 for the Society of Phipps Houses, offered much higher density housing. Here, he arranged working class flats on an indented perimeter block consisting of elements with four and six storeys, including a social room and a nursery. These elements were used by Stein for the arrangement of the Hillside Homes in the Bronx, which were built in the period from 1932 until 1935 as workers flats in a public-private partnership (fig. 77).[253] The 1415 flats were arranged in five-storey buildings, covering five blocks and designed as a single unit, partially closing public streets. The project therefore points to a certain extent towards the superblock as an autonomous unit, but – in distinction to later projects – still clearly addresses the street and creates separate interior courtyard spaces.

Another social housing project from the same time, also using a public loan from the Reconstruction Finance Corporation, but with an even more metropolitan density was Knickerbocker Village on the Lower East Side, designed by John S. Van Wart and Frederick L. Ackerman in 1932-33.[254] The 1593 flats were arranged in two twelve-storey perimeter blocks with green courtyards which were distinguished from the luxury inner urban developments only by their minimalist design.

During the economic depression, the federal government created the Public Works Administration (PWA) and started a federal housing programme in 1933.[255] At least at its start, public housing did not only follow technocratic ideals and bureaucratic methods, but aimed to improve social conditions in a deliberately urban context. In an official account of the public housing programme, Michael W. Straus and Talbot Wegg, two collaborators of the PWA Housing Division, underlined the importance of multifunctional urban neighbourhoods: "Housing should not be regarded as an aggregation of houses but as complete neighborhoods,"[256] including "parks, playgrounds, stores, community buildings and schools".[257] "The complete community"

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[253] Clarence S. Stein, "Toward New Towns for America", in: *The Town Planning Review*, vol. 20, no. 3, 1949, pp. 203-282, no. 4, 1950, pp. 319-418; Clarence S. Stein, *Toward New Towns for America*, Liverpool: Liverpool University Press 1951.

[254] Robert A. M, Stern, Gregory Gilmartin, Thomas Mellins, *New York 1930*, New York: Rizzoli 1987, pp. 418-419.

[255] Federal Emergency Administration of Public Works, *Urban Housing: The Story of the PWA Housing Division 1933-1936*, Bulletin No. 2, Washington: US Government Print Office 1936.

[256] Michael W. Straus and Talbot Wegg, *Housing Comes of Age*, New York: Oxford University Press 1938, p. 36.

[257] Michael W. Straus and Talbot Wegg, *Housing Comes of Age*, New York: Oxford University Press 1938, p. 74.

served as a cardinal principle of new developments.[258] Such a community was best served with public spaces which could only be created in large scale housing projects: "In a project of grouped dwellings, open, unbuilt-on space is concentrated in large areas for better community use than that which surrounds single family houses in the average residential neighbourhood."[259] Although they are not mentioned explicitly here, the semi-public courtyards of perimeter blocks ideally embodied these community spaces. The authors furthermore emphasised the social advantages of large scale housing projects per se: "In such projects social and recreational activities are developed spontaneously and, to the advantage of every inhabitant, civic interest is effectively aroused and easily maintained."[260] Social housing was therefore meant to become a catalyst of civic spirit in the sense of the City Beautiful Movement.

These urban ambitions were also reflected in the competition for urban blocks, which the New York City Housing Authority (NYCHA) set up in 1934 to qualify architects for the new public housing work. Most of the 278 entries followed the model of the indented perimeter block.[261] The first realised large-scale development, the Harlem River Houses at 7th Avenue (1934-37), also exemplifies this urban attitude (figs. 78, 79). Designed under the supervision of Archibald Manning Brown by chief designer Horace Ginsbern together with Charles F. Fuller, Richard W. Buckley, John Lewis Wilson, Frank J. Forster, Will Rice Amon for the NYCHA, the 574 apartments were arranged on four triangular urban blocks in four- to five-storey buildings as indented perimeter blocks.[262] The design combined inventions from sanitary housing projects with qualities from Beaux-Arts architecture and created a neighbourhood where the buildings clearly addressed the streets, courtyards formed distinguished recreational squares, vistas continued the axis of public streets, symmetrical compositions created understandable spaces, and an out door theatre served as a focal point for the community. This harmony with the urban

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[258] Michael W. Straus and Talbot Wegg, *Housing Comes of Age*, New York: Oxford University Press 1938, p. 55.
[259] Michael W. Straus and Talbot Wegg, *Housing Comes of Age*, New York: Oxford University Press 1938, p. 70.
[260] Michael W. Straus and Talbot Wegg, *Housing Comes of Age*, New York: Oxford University Press 1938, p. 57.
[261] Richard Pommer, "The Architecture of Urban Housing in the United States during the Early 1930s" in: *Journal of the Society of Architectural Historians*, vol. 37, 1978, pp. 235-264, 249-250.
[262] Federal Emergency Administration of Public Works, *Harlem River Houses*, Washington: US Government Print Office 1937.

environment was underlined by a contemporary critic in *Harper's Bazaar* in 1939, which praised the arrangement as "set squarely, conservatively, straight with the streets."[263]

Special praise was reserved for the careful and appropriate architectural treatment. In a critical review of New York's public housing programme, the Harlem River Houses were the only development which obtained unrestricted praise by the American Institute of Architects: it possessed "Simplicity and domestic character. An outstandingly excellent job of planning."[264] This high-quality design was also the result of a deliberately non-separatist approach. The architects did not aim to design tenements which looked like social housing. As John Lewis Wilson, one of the architects, put it later, they had been "interested in housing, not housing for the poor". This resulted in a complex which "could have been built for anybody, anywhere."[265] Although the Harlem River Houses were designated exclusively for housing black inhabitants, a distinguished upper class architect such as Manning Brown designed the best he could within the given economic context. It was only through this approach that a decent urban neighbourhood could emerge.

The public housing programme soon abandoned this urban approach – due to economic and bureaucratic factors, but also to the influence of the anti-urban ideology of European avantgardism. The resultant destruction of the city can best be observed in the Williamsburg Houses in Brooklyn, exactly contemporary to the Harlem River Houses, but designed by the avantgardist-informed architect William Lescaze for the NYCHA. He arbitrarily shifted a usual indented building pattern 15 degrees against the urban street grid and by this simple means destroyed any clear connection of the buildings to the street. The houses have no street front, the development has no spatially defined courts, and the buildings are floating in an abstract green space. This shift becomes even more absurd as there was no real reason for it. Since the street pattern was almost exactly North-South oriented, the shift of the buildings only created worse

[263] Katherine Hamill, "2196 Families Are Living in the Williamsburg and Harlem River Housing Projects", in: *Harper's Bazaar*, August 1939, p. 101; quoted after: Gail Radford, *Modern Housing for America. Policy Struggles in the New Deal Era*, Chicago and London 1996, p. 164.
[264] The Committee on Housing, New York Chapter, American Institute of Architects, *Large Scale Housing in New York, Monograph No. 1, The Significance of the Work of the New York City Housing Authority*, New York: AIA 1949, pl. 1.
[265] Gail Radford, *Modern Housing for America. Policy Struggles in the New Deal Era*, Chicago and London 1996, p. 160.

environmental conditions, as Talbot Hamlin noted in a contemporary criticism in 1938: "The reasons for the change of angles seem obscure [...]. The present layout converts the courts into perfect channels for our most vicious Northwest winds".[266] Furthermore, it also did not result in any aesthetic advantage: "Certainly the unsymmetrical, sawtooth type of effect on the street fronts is neither inviting or informal: it has an aggressive formality of its own."[267] Thus an arbitrary architectural decision – presumably taken with the only reason to be different and new – had destroyed the crucial relationship between building and street, the delicate balance which creates the urban realm.

The further development of the public housing programme did not receive a great deal of appreciation. A critical review by the American Institute of Architects under its chairman Arthur C. Holden in 1949 accused the NYCHA of architectural failure: "Failure by the Authority to realize aesthetic possibilities in large-scale housing has set a bad example of barrenness and barracks-like appearance."[268] Apart from the architectural monotony, all of the approximately 30 projects reviewed – apart from the Harlem River Houses – neglected or even opposed the street pattern with autonomous superblock structures and star patterns. Social housing had thus given up on creating a specifically urban atmosphere and only further encouraged the move to suburban estates.

The second densest city in the US had been Chicago. A model of urban block arrangement with exterior and interior buildings and a central garden court was developed by Frank Lloyd Wright in his project for Lexington Terraces 1901-1909, a low-rise but urban combination of terraced houses and flats. While the first high-rise buildings were exclusively constructed for office purposes, the idea to create a uniform metropolis soon also included urban dwellings in the new typology. Edward Herbert Bennett and Daniel Hudson Burnham's "Plan of Chicago" (1906-09)

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[266] Richard Pommer, "The Architecture of Urban Housing in the United States during the Early 1930s" in: *Journal of the Society of Architectural Historians*, vol. 37, 1978, pp. 235-264, quote p. 254.

[267] Talbot Hamlin, "New York Housing. Harlem River Houses and Williamsburg Houses" in: *Pencil Points*, vol. 19, May 1938, pp. 281-292, quote p. 286; quoted after: Richard Plunz, *A History of Housing in New York City. Dwelling Type and Social Change in the American Metropolis*, New York: Columbia University Press 1990, p. 216.

[268] The Committee on Housing, New York Chapter, American Institute of Architects, *Large Scale Housing in New York, Monograph No. 1, The Significance of the Work of the New York City Housing Authority*, New York: AIA 1949, p. 10. Cf. also: "Too many of the projects executed by the Authority are barren and barracks-like in design." Ibid., p. 99.

envisaged a uniform development of the entire city centre with large 20-storey blocks which were rendered in a suggestive and abstract uniformity by Jules Guérin.[269] The correlation between unified urban design and democracy was established by Burnham in his lecture "A City of the Future under a Democratic Government" given at the London Town Planning Conference in 1910.[270] Burnham and Bennett's City Beautiful was thus in full accordance with the contemporary attempts to create a modern metropolis in Europe, fitting the political needs of a democratic society and the economic needs of international trade, as discussed by Scheffler in Berlin or Wagner in Vienna.

While Burnham did not pay special attention to the housing question, the following generation did. The Michigan Boulevard Gardens in Chicago by Eugene H. Klaber and Ernest A. Grunsfeld Jr. (1929) created a model example of a reformed urban block, following examples from New York (fig. 80). The uniform five-storey building complex covered an entire block and contained one large enclosed garden courtyard. It also included *courts d'honneur* towards the street and a row of shops towards the boulevard. Werner Hegemann displayed it in his late volume on *City Planning. Housing* (1938) as an example of the typology of the reformed urban block: "the open space has been concentrated in a large interior courtyard [...] which is completely enclosed by a solid row of buildings fencing it off from the surrounding streets."[271]

This volume on *City Planning. Housing. A Graphic Review of Civic Art 1922-1937*, published after Hegemann's death and conceived as a follow-up volume to the famous *American Vitruvius. An Architects Handbook of Civic Art* from 1922, offers a telling overview on the state of the art of urban housing at the end of our era. Next to garden cities, new settlements and suburban quarters, it displays international examples of reformed urban blocks, including several *Höfe* from Vienna, Fisker's blocks in Copenhagen, public housing blocks in Liverpool and Manchester, new blocks from Paris, the skyscrapers of Villeurbanne, Schumacher's quarters in Hamburg, examples from Amsterdam and Rotterdam, blocks in Stockholm, a block in Madrid and several

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[269] Daniel Hudson Burnham and Edward Herbert Bennett, Charles Moore (ed.), *Plan of Chicago*, Chicago: Commercial Club 1909; John Zukowsky (ed.), *The Plan of Chicago 1909-1979*, Chicago: The Institute 1979.
[270] Daniel Hudson Burnham, "A City of the Future under a Democratic Government", in: Royal Institute of British Architects (ed.), *Town Planning Conference. London, 10-15 October 1910. Transactions*, London 1911, pp. 368-378.

examples from New York and Chicago. This not only reflects the continued importance of this building typology, but also its widespread international dissemination which was in turn further enhanced by this publication. The reformed urban block for the modern metropolis was neither a European nor an American phenomenon – it was truly international with numerous local characteristics in typology, material and style.

9. Conclusion: Urbanity as a Paradigm

All these examples show that there has been a broad tradition of creating metropolitan dwellings in the early 20th Century. This movement aimed to reform the metropolis, not to overcome it by proposing alternative models like Garden Cities and *Siedlungen*. The generic urban typology used was the reformed urban block, a city block which continued the tradition of city building, but improved housing conditions largely by introducing green spaces into the block. Thus in a certain sense the satirical as well as utopian paradox of Kurt Tucholsky's poem was realised – a combination of city and nature without destroying urban qualities: "Yes, that's what you want: a home in the green with a big terrace, in front of your house the baltic sea – behind it the Friedrichstrasse".[272] A huge variety of forms had been invented ranging from spacious courtyards, internal streets, courts towards the surrounding streets and lower internal buildings, just to mention the most obvious examples. The movement for block reform must therefore be considered as highly creative. This kind of *recherche patiente* may even have involved more creativity than developing simple bars as a result of sanitary demands according to supposed scientific methods.

Furthermore, this movement was truly international without ignoring the local context. In all the major metropolises in Europe and America, private developers, public housing associations, architects and planners constructed examples of these reformed urban blocks. Sometimes this type of unified block arrangement was even regarded as being the result of the international economy and therefore being essentially international. On the other hand, all the different

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[271] Werner Hegemann, *City Planning. Housing, vol. 3, A Graphic Review of Civic Art 1922-1937*, New York: Architectural Book Publishing Company 1938, p. 152.

examples within the different cities show quite different characteristics. Urban typology and architectural design were able to adapt to the respective local traditions. London blocks reflected Georgian design, Milan blocks Renaissance Classicism, Paris blocks reacted against Haussmann's uniformity and Scandinavian blocks created a new tradition of Nordic Classicism. While the basic typology could be used in every urban context, the architectural design of the reformed urban block was able to develop an appropriate mode of expression for the specific local context.

Finally, this movement was long-lasting and created extremely successful urban dwellings. Avantgardist interpreters such as Gropius or May had tried to characterise it as a mere intermediary step between the dense blocks of the 19th Century and the scientific bar estates of the 1920s. Seen from today, this interpretation was a kind of hopeful propaganda and the opposite seems to be true. While urban blocks have been built successfully since the Hippodamian city right through to the 21st Century, the green estates of bars and towers were an exception which lasted just 50 years during the 20th Century. What is more, most of the examples of this exception failed to establish long-lasting urban neighbourhoods. Reformed urban blocks have been constantly conceived and built between 1890 and 1940. Given the immense number of blocks realised, they were historically much more important than the avantgardist models. Moreover, given the long-term success of most of these developments, they deserve a superior place in architectural and urban design history.

All of these characteristics had already been summarised in a publication which came out at the end of the period under consideration. It was written by the distinguished Parisian architect H. Kamenka in 1947 with the title *Flats. Modern Developments in Apartment House Construction*. He not only focussed on reformed urban blocks, but also considered the entire metropolis as a culturally attractive entity, offering an extremely rich mixture of activities which could never be achieved by quasi-rural settlements. Such a dense city could not be achieved with detached family houses but only with urban tenements. Therefore, he was "trying to make the flats desirable, instead of 'inevitable'."[273] One of the major advantages of the reformed urban blocks was their possible multifunctional nature as "shops and other commercial occupancy are

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[272] "Ja, das möchtste, eine Villa im Grünen, mit grosser Terrasse, vorne die Ostesee, hinten die Friedrichstrasse."

frequently allowed on the ground floor. [...] shops on the premises represent a great convenience to tenants."[274]

Another central aspect to Kamenka was the specific local quality of urban buildings. Against a ubiquitous international style he asked for "regionalism" instead of "internationalism" in architectural forms.[275] He identified such regional colouring in recent urban block developments: "The urban dwelling, represented by the block of flats, although largely embodying the international amenities and technical achievements of the last thirty years, has to a great extent retained the national traits of each country. Indeed, the Parisian limestone *immeuble de rapport* is as remote from the sprawling London block of flats, as the twenty-storey New York apartment house differs from the marble-clad structure of Milan or the austere granite building of Stockholm."[276] Even if it was well informed with international improvements, the reformed urban block allowed for a specific local mode which contributed to the specific traditions of different cities.

Finally, he also underlined the social advantages of urban blocks. They could serve all classes, from social housing to luxury commercial developments: "I do not believe that the apartment house, a form of dwelling developed by architectural achievement in the course of social and demographic evolution, is destined to serve only one class of society or one family group."[277] And they were able to enhance the spirit of community within the city: "Blocks of flats are no less adaptable to community planning , than a cluster of individual houses [...]. In fact, flats may be even more apt to develop that healthy 'community feeling', that civic pride in the common achievement, which will make people say OUR instead of MY. It is the same spirit with regard to the civic centre, the park, the playgrounds, as was inspired in the mediaeval burghers by their

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[273] H. Kamenka, *Flats. Modern Developments in Apartment House Construction*, London: Crosby Lockwood & Son, 1947, p. 21.

[274] H. Kamenka, *Flats. Modern Developments in Apartment House Construction*, London: Crosby Lockwood & Son, 1947, p. 82.

[275] H. Kamenka, *Flats. Modern Developments in Apartment House Construction*, London: Crosby Lockwood & Son, 1947, p. 45

[276] H. Kamenka, *Flats. Modern Developments in Apartment House Construction*, London: Crosby Lockwood & Son, 1947, p. 46.

[277] H. Kamenka, *Flats. Modern Developments in Apartment House Construction*, London: Crosby Lockwood & Son, 1947, p. 137.

cathedral and their city hall."[278] Reformed urban blocks, not detached family houses in garden suburbs or towers in the park, were the appropriate model for dwellings in the metropolis.

How did in fact this tradition continue? Far from being totally overrun by the CIAM doctrine of functional zoning and green housing, it continued after the Second World War. A large number of European reconstruction plans were based on the block model, ranging from the modernised French Classicism in Auguste Perret's rebuilding of Le Havre to the locally coloured Social Realism of the Stalinallee in Berlin. Although these two famous examples served very different political purposes, they both created an urban fabric which allowed for a metropolitan way of life. Other less famous examples from the 1940s and 1950s include new quarters in Lisbon by E. de Gröer where urban buildings followed urban boulevards, or the El Silencio neighbourhood in Caracas by Carlos Raul Villanueva where blocks with green courtyards and arcades towards the street had been designed in the international style.

While in the 1960s the use of the block model was more or less restricted to anonymous infill projects, it prominently re-emerged in the context of Postmodern architectural debate in the 1970s. Leslie Martin and Lionel March promoted the perimeter block as the most appropriate typology for dense urban housing in a seminal study in 1971.[279] Josef Paul Kleihues' block at the Vinetaplatz in Berlin was the first to re-introduce the perimeter block into Berlin's urban fabric in 1971 after the large housing estates of the post-war period. Richard Meier's Twin Parks Northeast in New York attempted to fit a new housing project into the existing urban fabric in 1973. Christian de Portzamparc referred to the varied typology of reformed urban blocks to create his blocks at the Rue des Hautes-Formes in Paris in 1979. After these pioneering examples, reformed blocks became the model for trend-setting larger extension plans such as the International Building Exhibition (IBA) in Berlin 1984/87 or the Olympic Village in Barcelona in 1992. Finally, with the advent of New Urbanism, models for urban block developments are back on the agenda of urban design, both in America and Europe. Thus it can be said that – apart from a short period in the 1960s – the reformed urban block typology was used for creating metropolitan dwelling quarters throughout almost all of the 20th Century. It may also be noted that it created

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[278] H. Kamenka, *Flats. Modern Developments in Apartment House Construction*, London: Crosby Lockwood & Son, 1947, p. 134.

the most successful urban quarters – with architecturally defined public spaces, with mixed use, and with recreational amenities which urban blocks did not possess before.

These observations on 20th Century urban housing also imply a deeper reflection on architectural historiography of this period. Until now, all major interpretations of early 20th Century architecture and urban design have followed either the paradigm of innovation or the paradigm of style. Far from being objective categories, these paradigms also always imply a specific evaluation, a judgement with moral overtones. Historians following the paradigm of innovation classify specific developments as either avantgardist or traditionalist – while then judging them as good or bad according to their personal ideology. The same is true for the paradigm of style. In this case, the classification oscillates between international and regional styles, again with specific implications of good and bad according to the author's preferences. This moral judgement may be inevitable – but are the paradigms of innovation and style still the relevant categories for evaluating architecture and urban design in the early 20th Century today?

We can no longer believe in the unconditioned value of innovation, as purely innovative concepts created the worst disasters in urban design in the 20th Century. We also no longer believe in the overarching relevance of style, as style may be considered as only one of several other relevant aspects in building. Innovation and style are not pressing problems in architectural discourse today, whereas urbanity remains a key issue. I therefore propose the concept of urbanity as a new paradigm to deal with 20th Century architecture. This would cut a new section through the well-known body of architecture and urban design of the 20th Century and would allow for much more relevant judgements on the value of specific projects. As this article has shown, there are a series of deliberately "urban" housing developments against a background of deliberately "anti-urban" housing projects. Both, the "urban" as well as the "anti-urban" projects include avantgardist and traditionalist approaches as well as international and regional style concepts. Thus, once again, the question is not to judge these developments according to their level of innovation or their stylistic concept, but rather the more relevant question is whether they were conceived with a "pro-urban" attitude, with the intention to reform and improve the metropolis, or with an "anti-

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[279] Leslie Martin and Lionel March, *The Structure of Urban Space*, London: Cambridge University Press 1972.

urban" attitude, with the intention to overcome the metropolis and substitute it with a new town-country-entity.

On the one hand, this paradigm of urbanity is just as objective as the other paradigms. It is clear that urbanity was a relevant criterion discussed at the time and was the objective of several projects – as the questions of innovation and style had been. On the other, it certainly also involves a value judgement. In an era when inevitable urbanisation is the general trend and urban regeneration of old European and American cities as well as unprecedented urban growth in new Asian and African metropolises are the most pressing problems in architecture and urban design, successful models of "pro-urban" architecture are sure to be much more appreciated than "anti-urban" concepts. Nevertheless, whatever the personal opinion of the interpreter might be, the paradigm of urbanity offers a highly relevant criterion to re-evaluate architecture and urban design of the 20th Century, a criterion which allows for a new interpretation of historic architecture and urban design as well as the re-discovery and appreciation of relevant examples for future urban architecture.

As a result of the close analysis of the reformed urban blocks, the following general conclusions can be drawn for the development of future urban dwellings. Urban typology and architecture should:

- allow for social mixture and inclusion to avoid social segregation,
- allow for mixed use to avoid the impracticality of monofunctional areas,
- allow for conversion to avoid expensive and unsustainable reconstruction,
- clearly define public spaces to avoid the problems of left-over space,
- deliberately address the public sphere to create distinctive public spaces,
- create a certain building density and allow for a certain population density to reduce commuting traffic and protect the landscape,
- create distinctive spaces for recreation to satisfy basic needs for greenery, light and air as well as cultural needs of relaxation,
- achieve a high building quality which ensures duration, ageing and future value,
- have an urban facade which enriches the public realm and contributes to a meaningful and beautiful city.
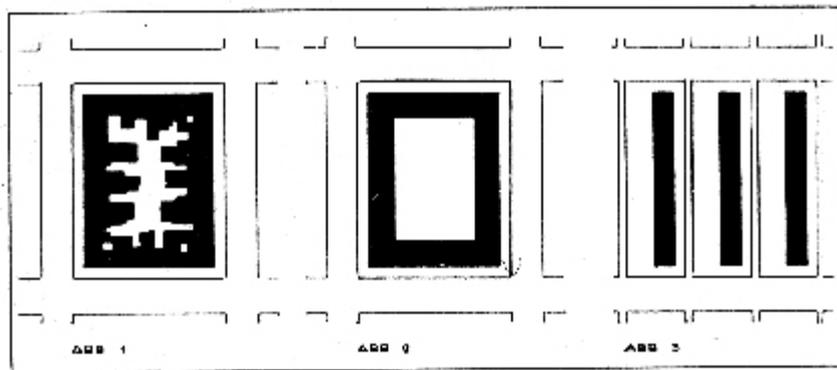
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Fig. 3: Alfred Messel, tenement block at Proskauerstraße in Berlin, 1897-98.
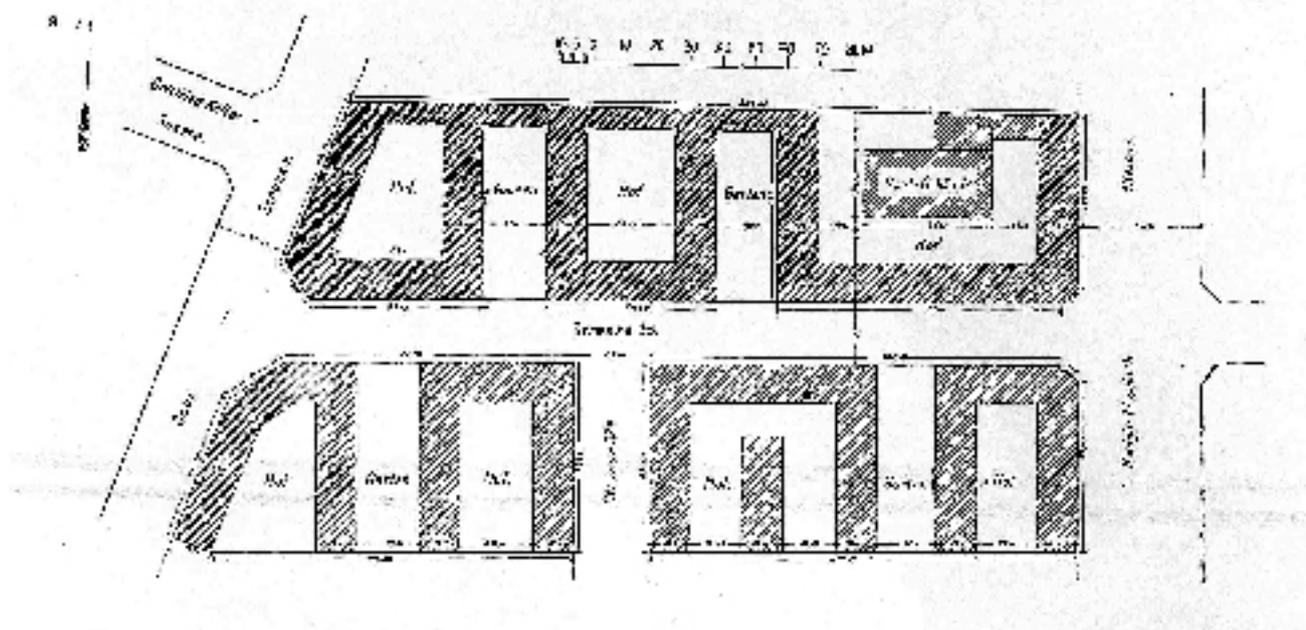
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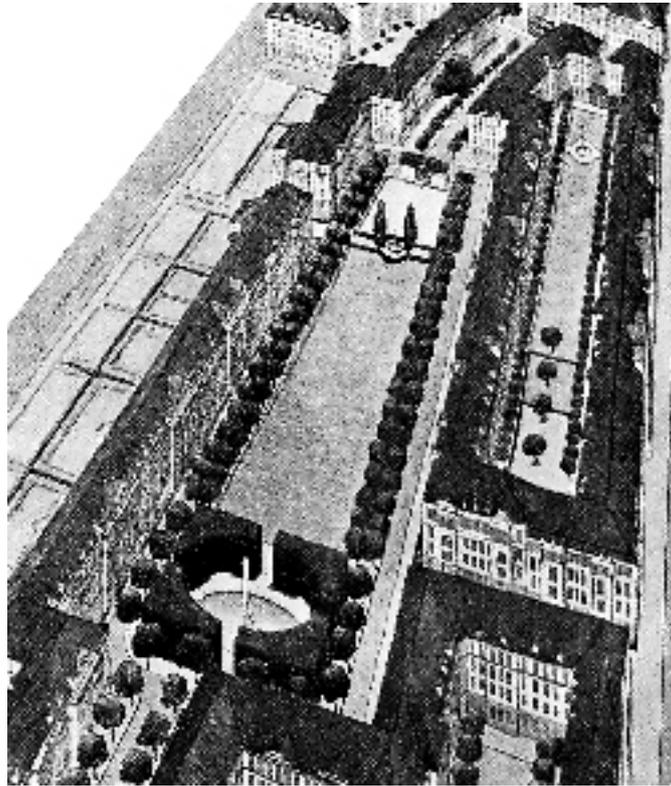
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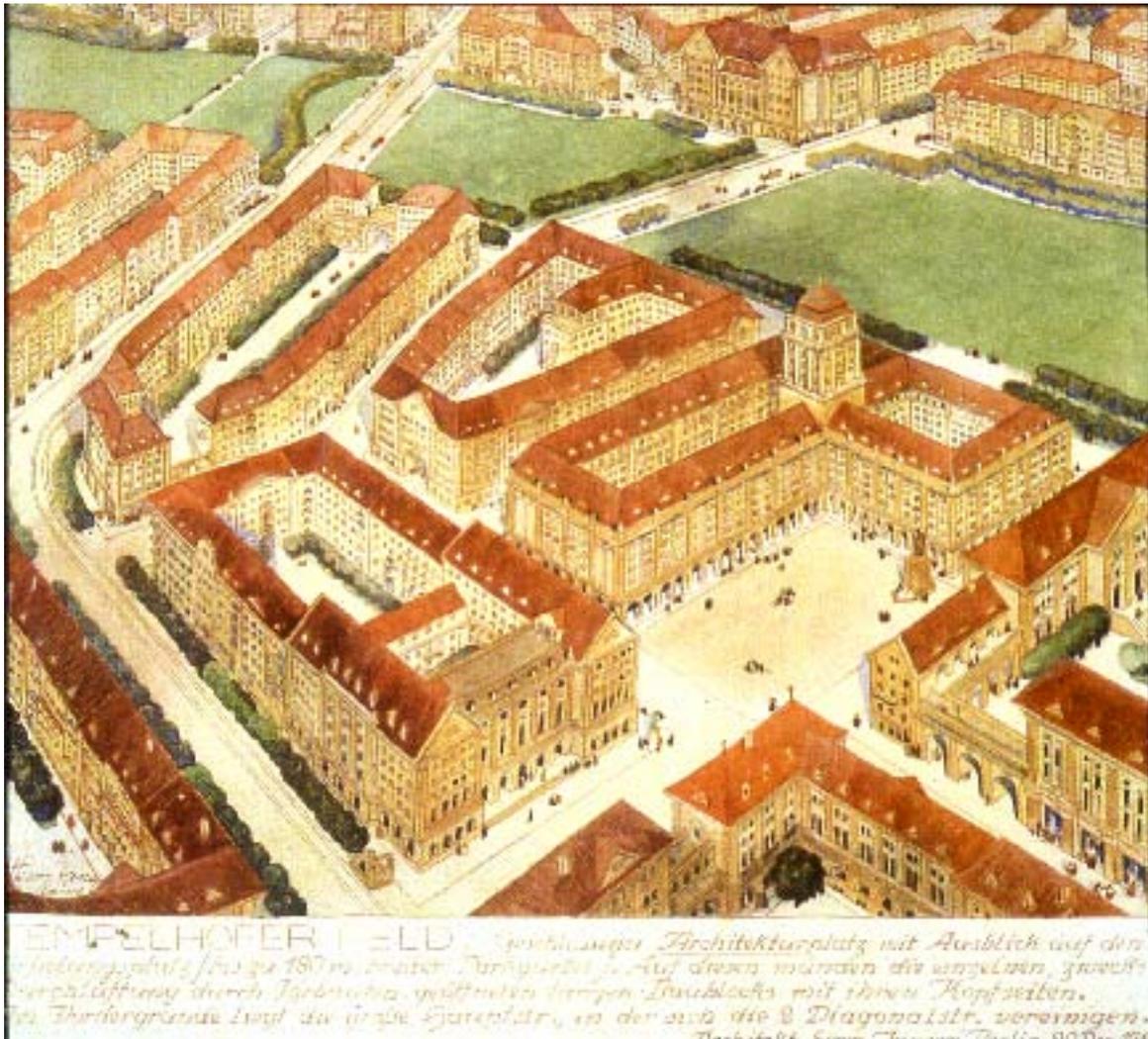
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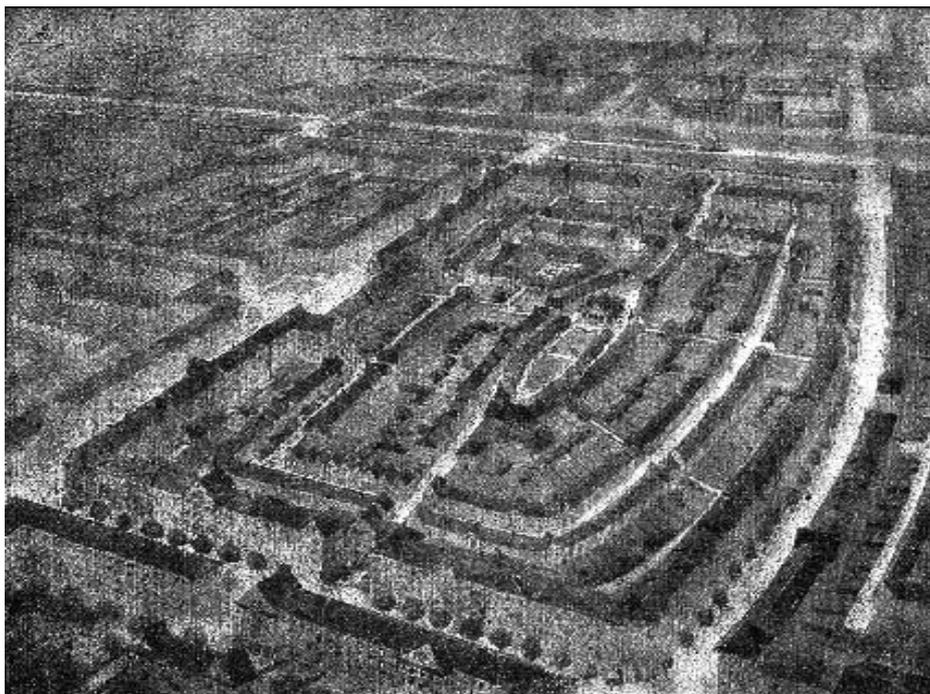
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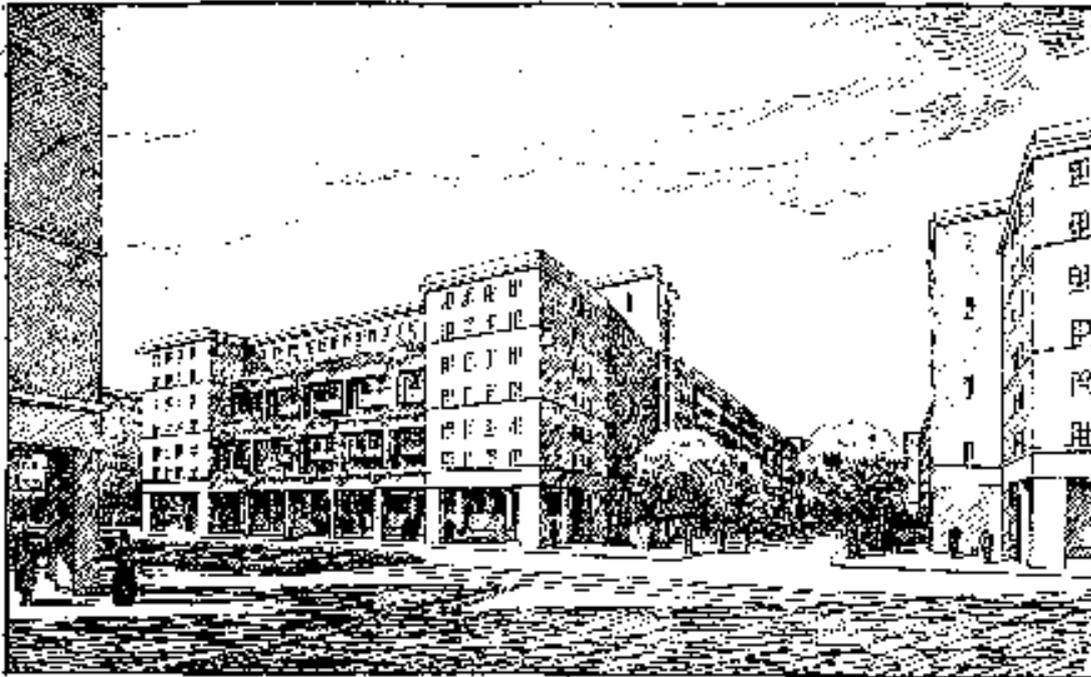
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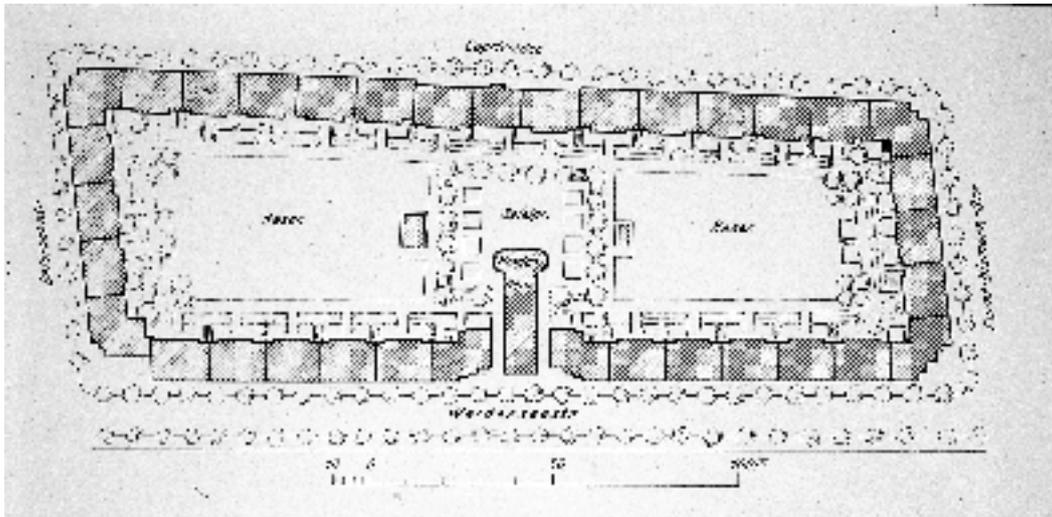
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Fig. 12: Erwin Anton Gutkind, Sonnenhof in Berlin-Lichtenberg, 1925-27.
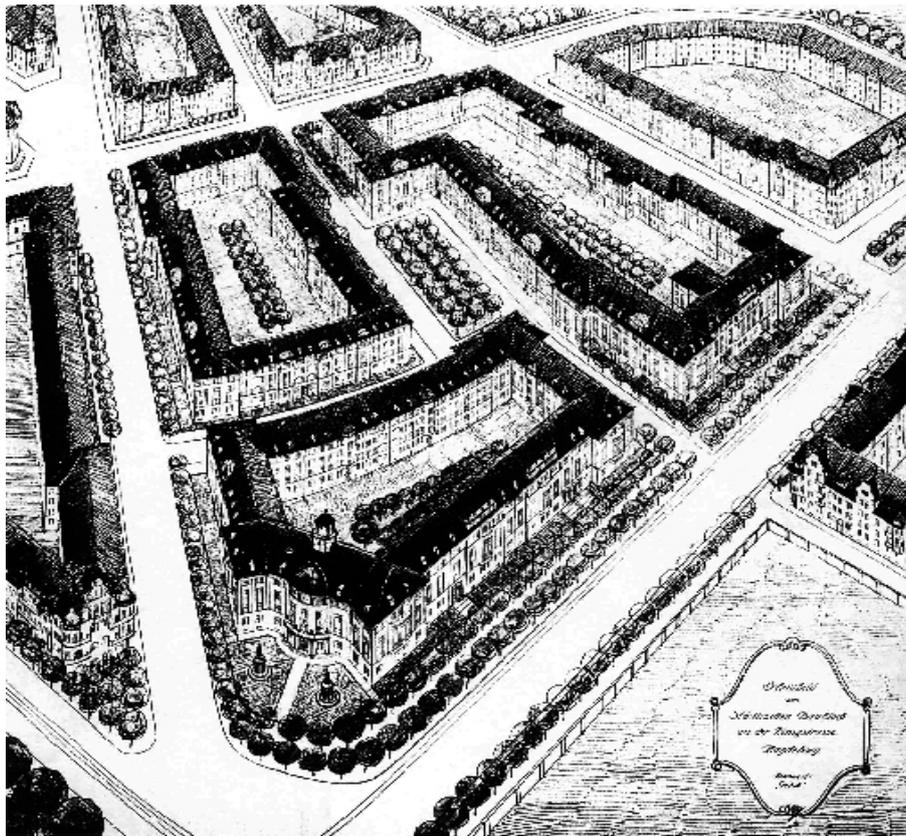
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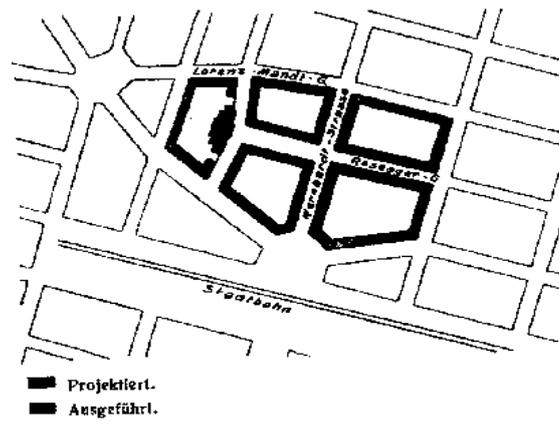
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Fig. 16: Theodor Bach and Leopold Simony, Jubilee Houses in Vienna, 1896-1901.

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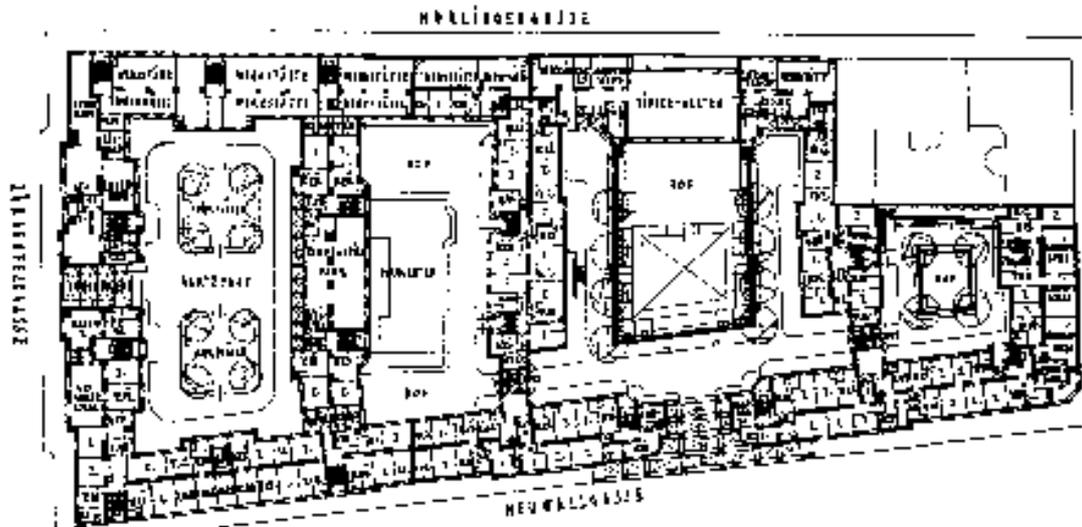
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Fig. 20: Hubert Gessner, Reumannhof in Vienna, 1924.
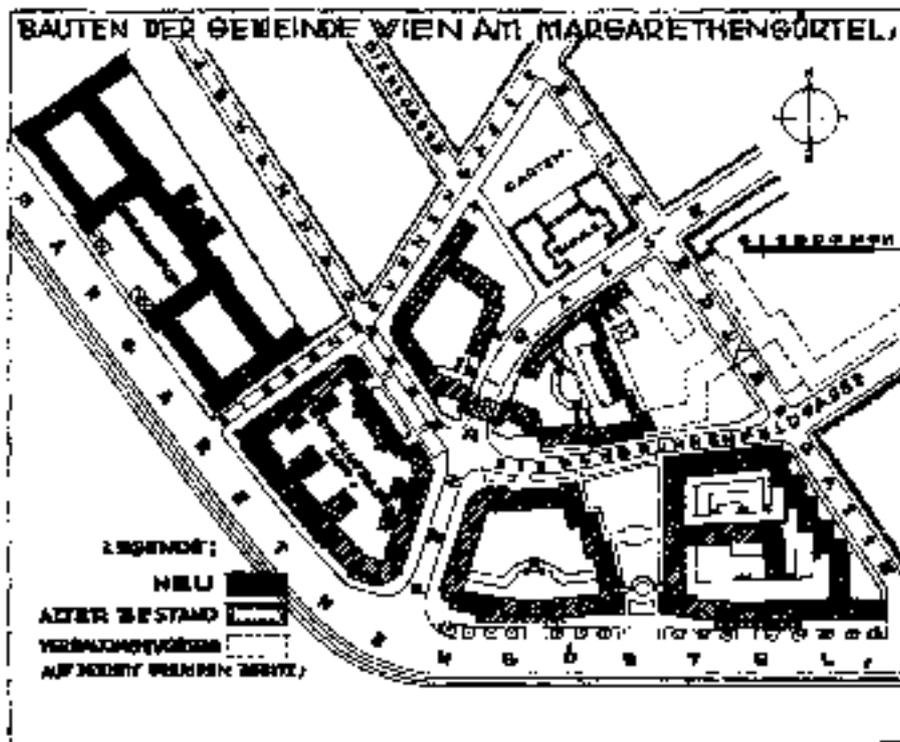
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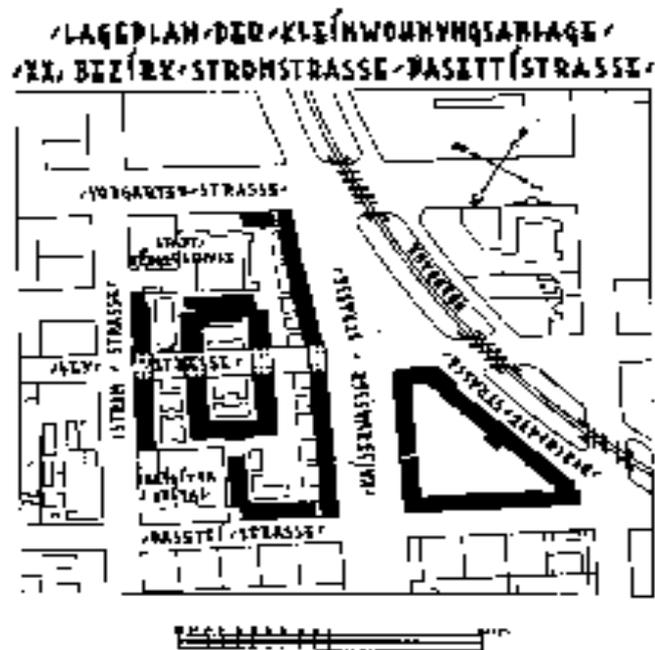
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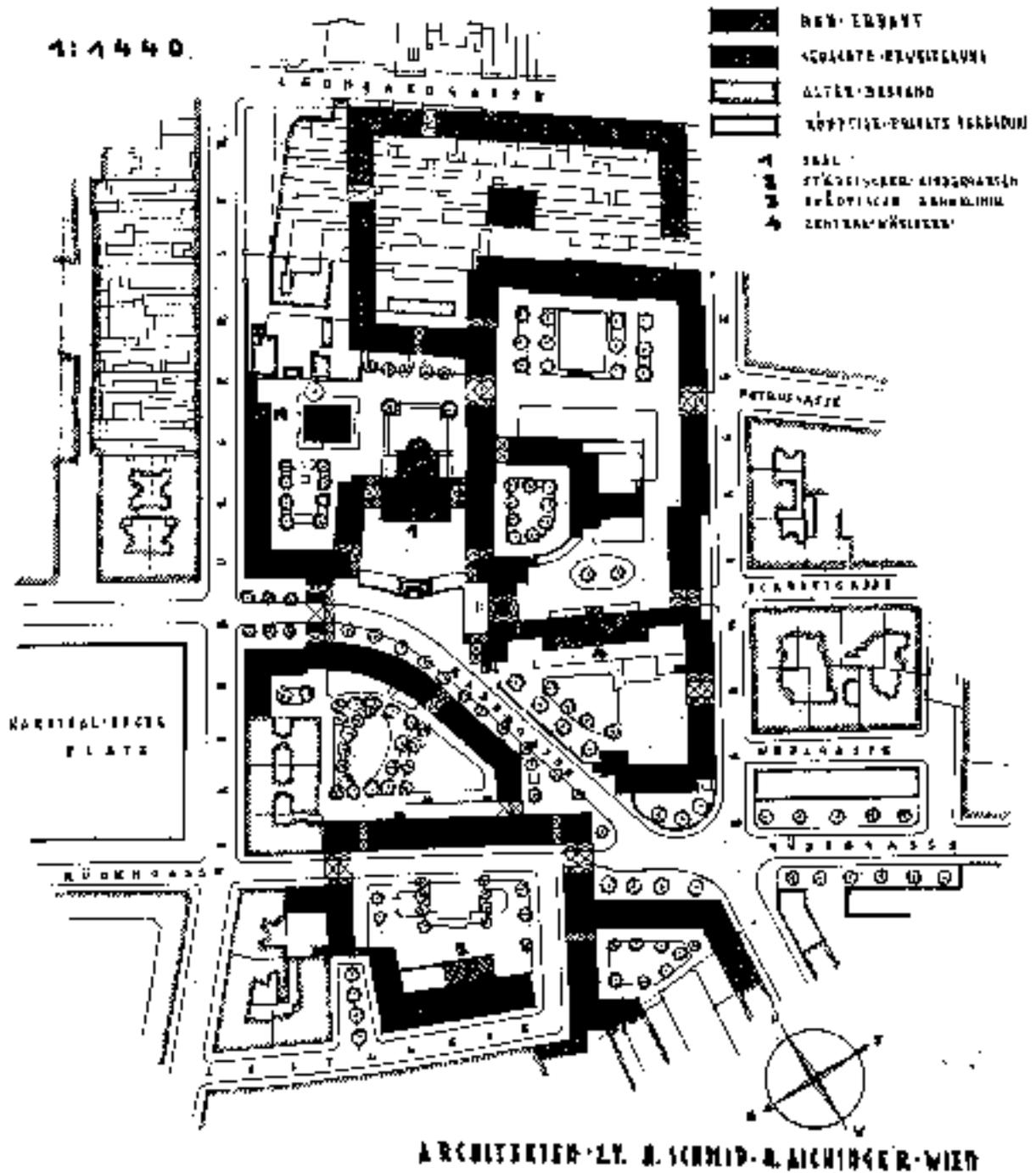
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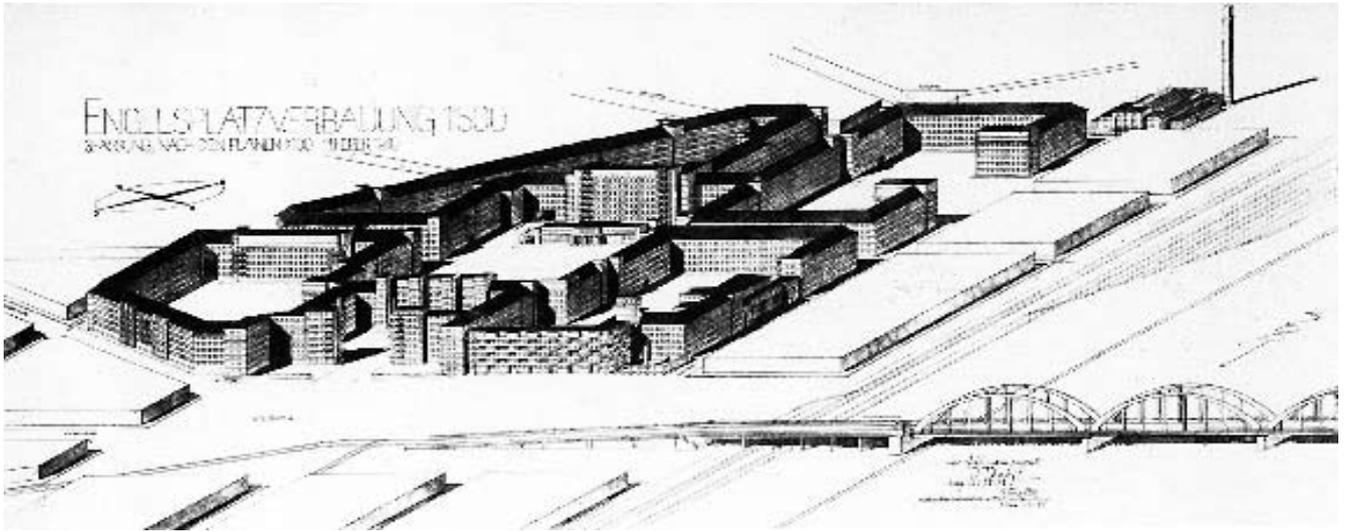
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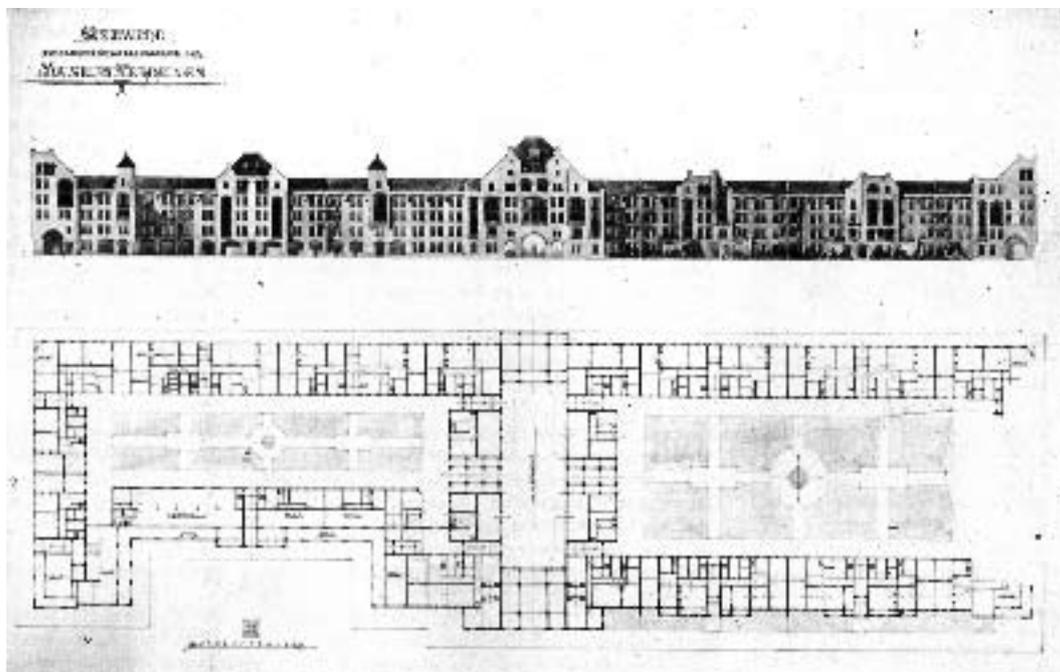
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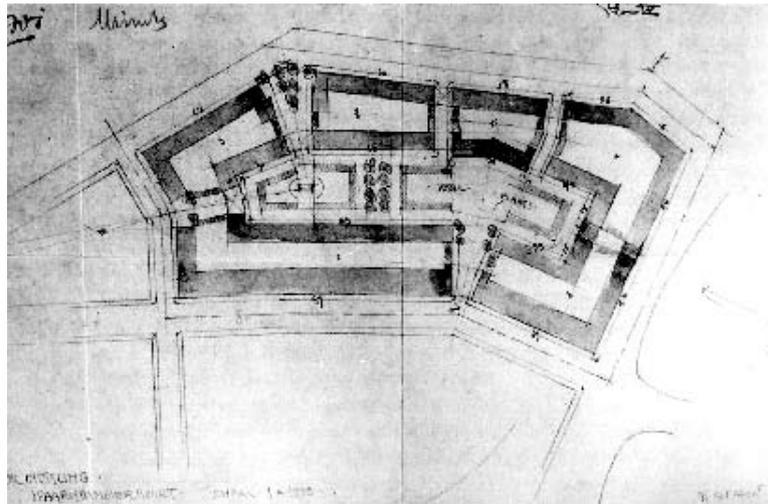
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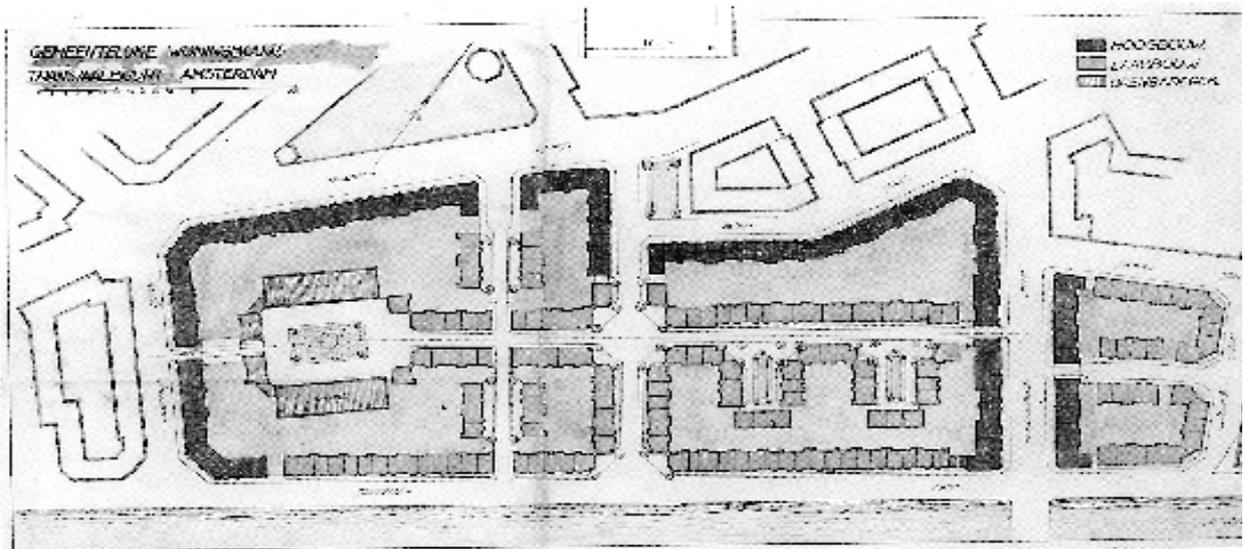
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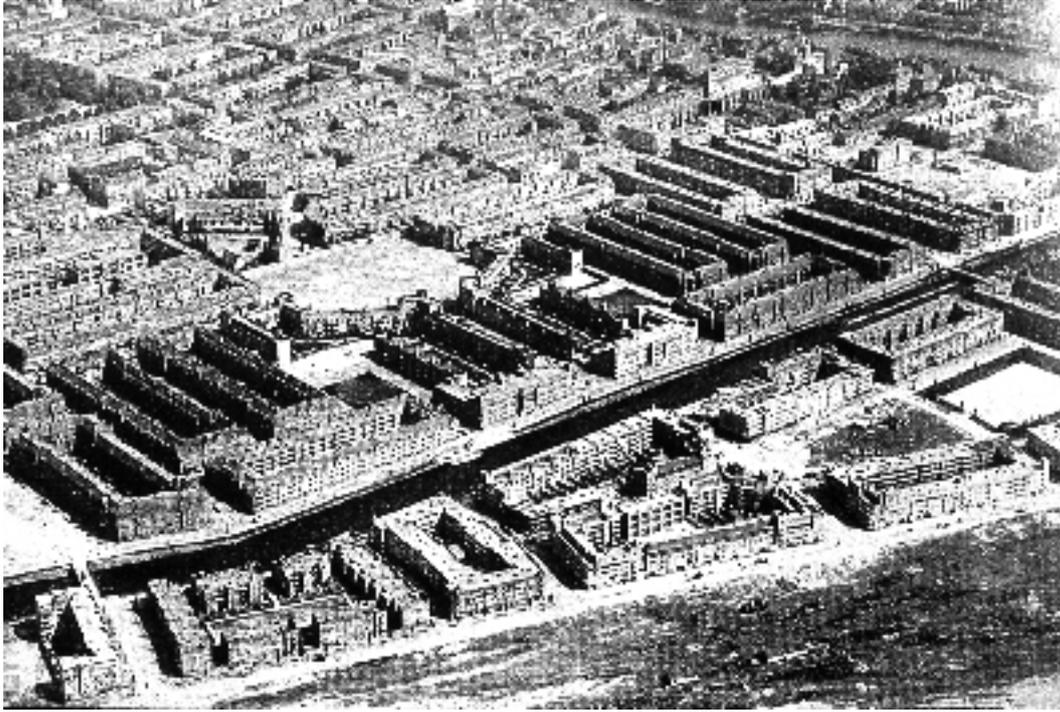
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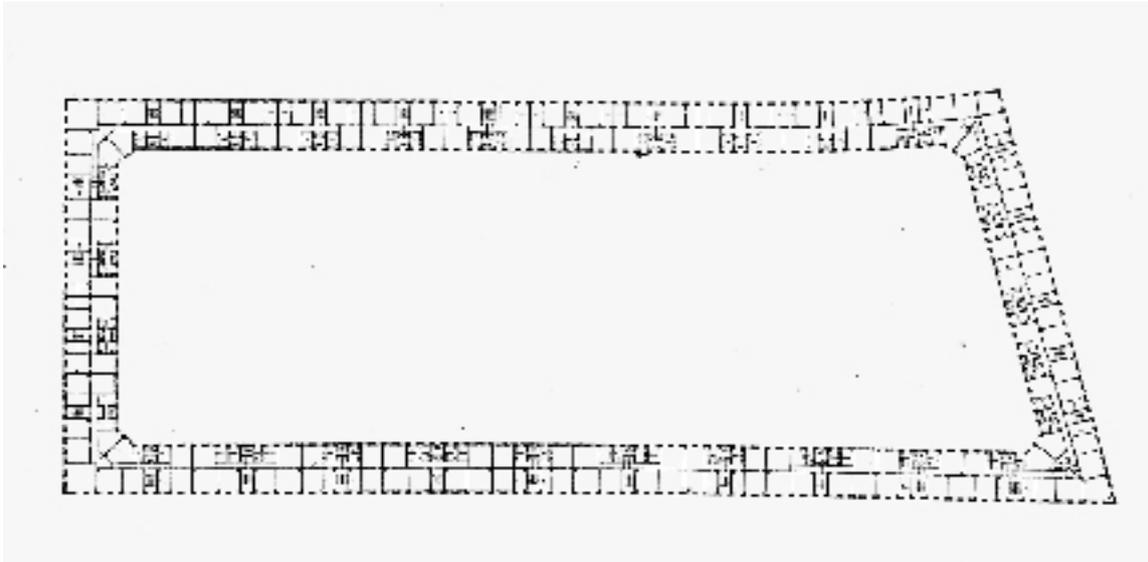
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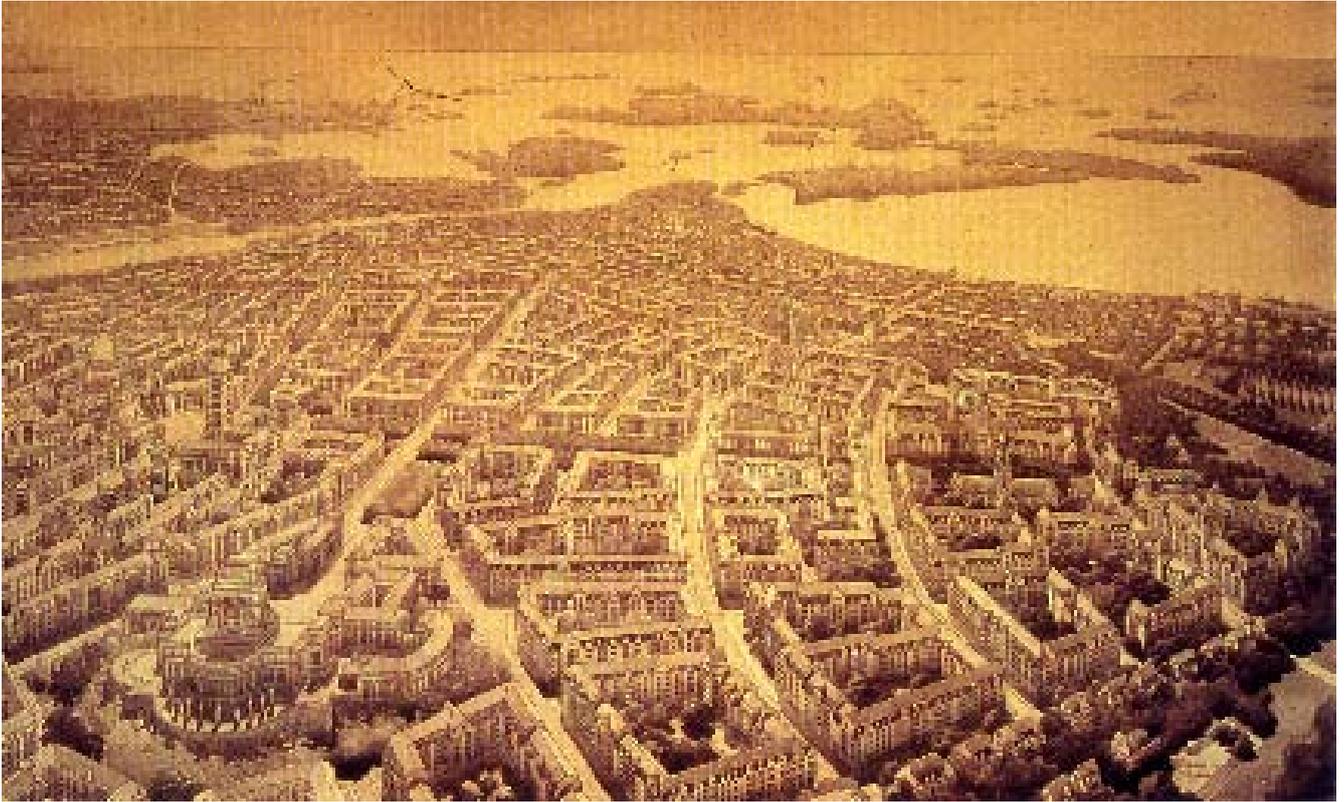
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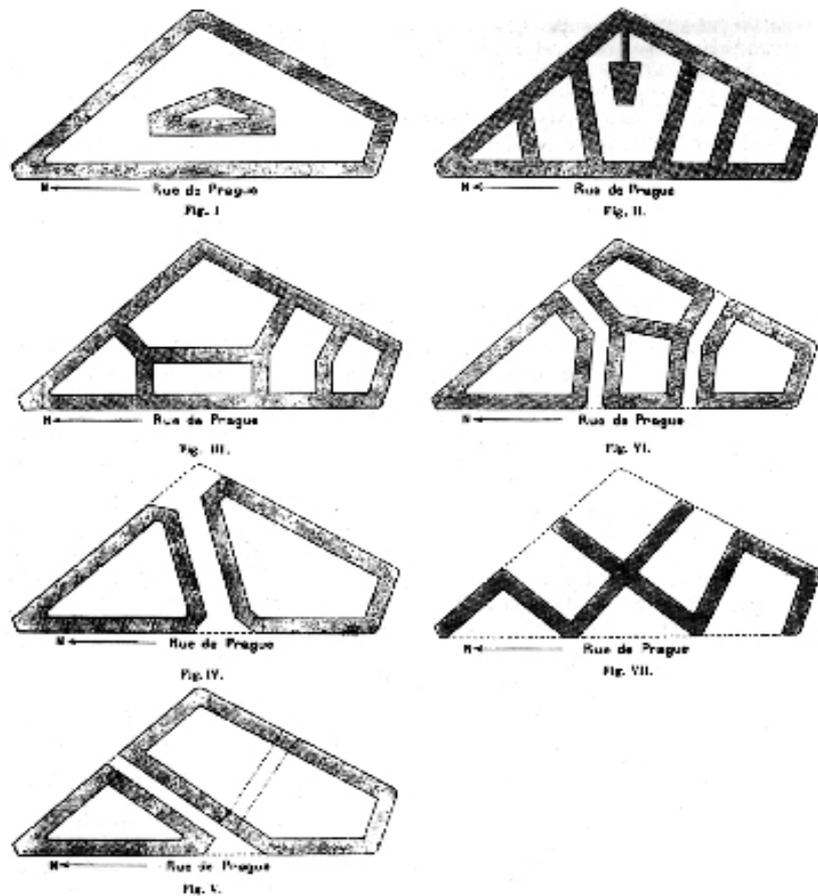
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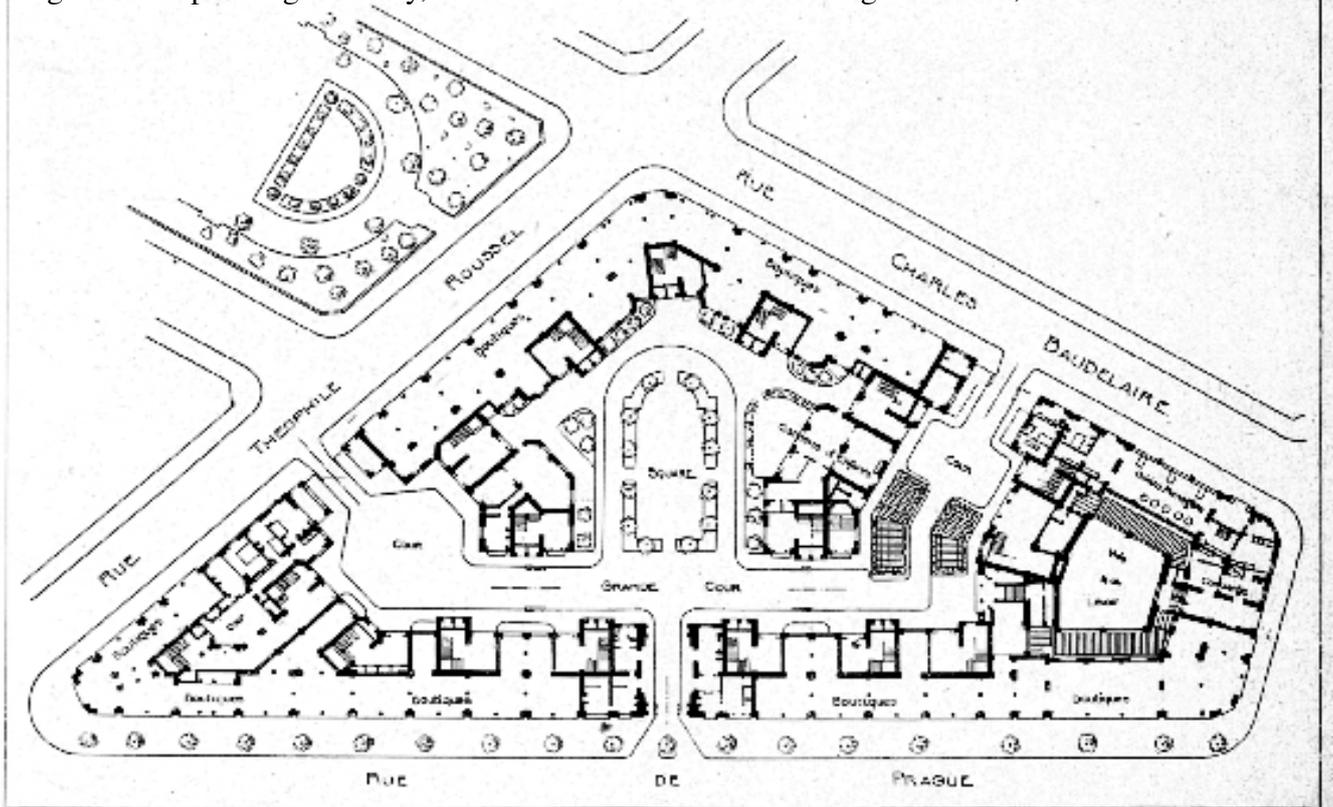
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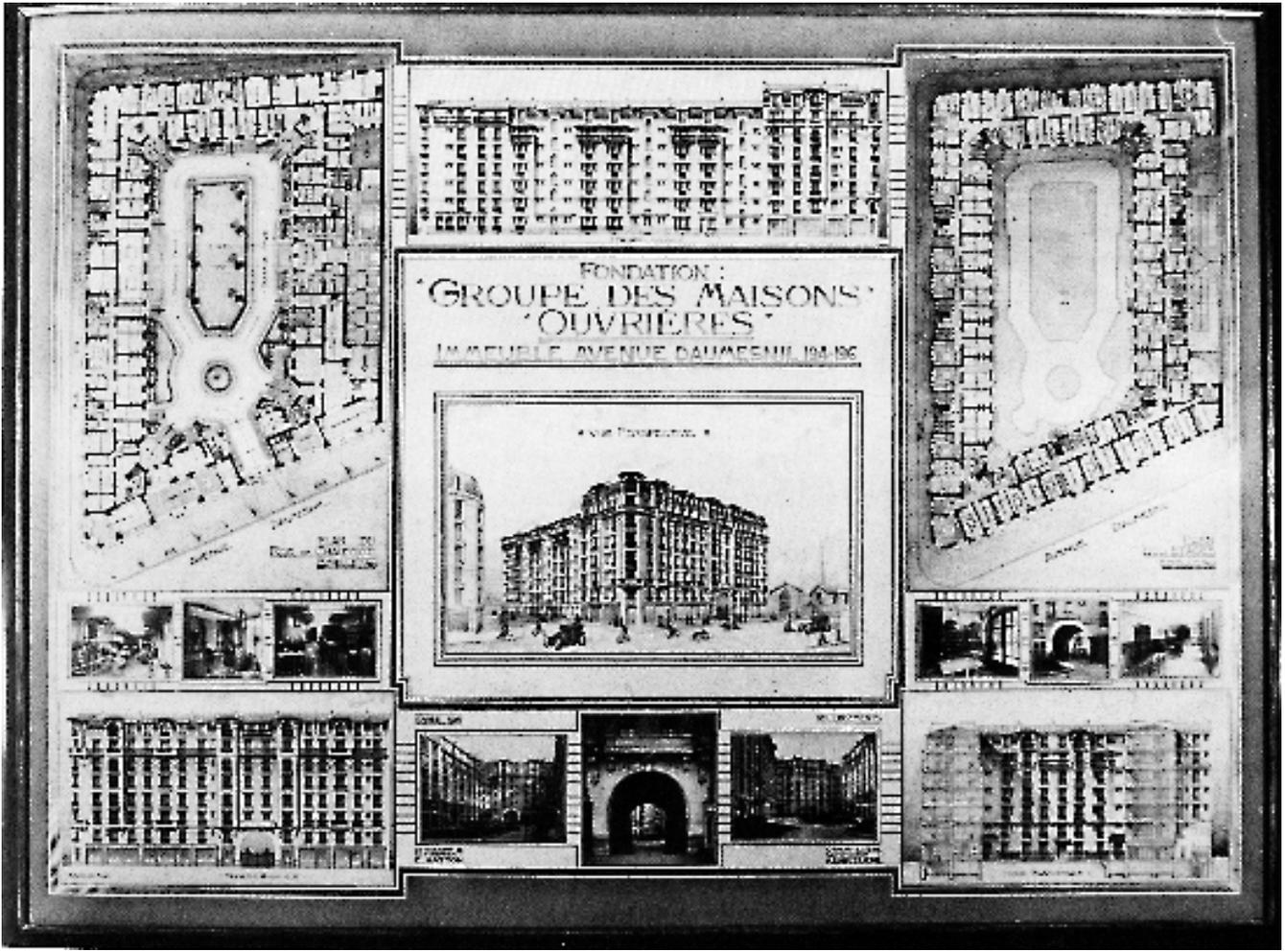
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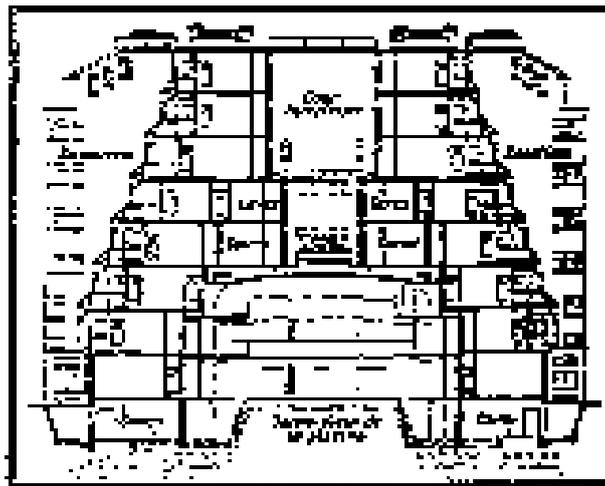
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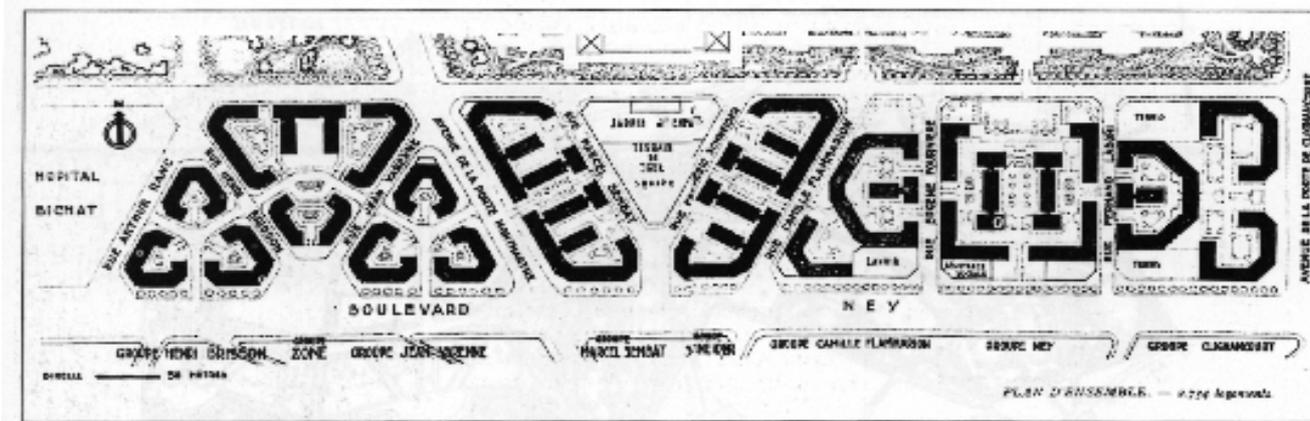
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Fig. 46: Office public d'habitations à bon marché, Cité de Montmartre in Paris, 1920-26.

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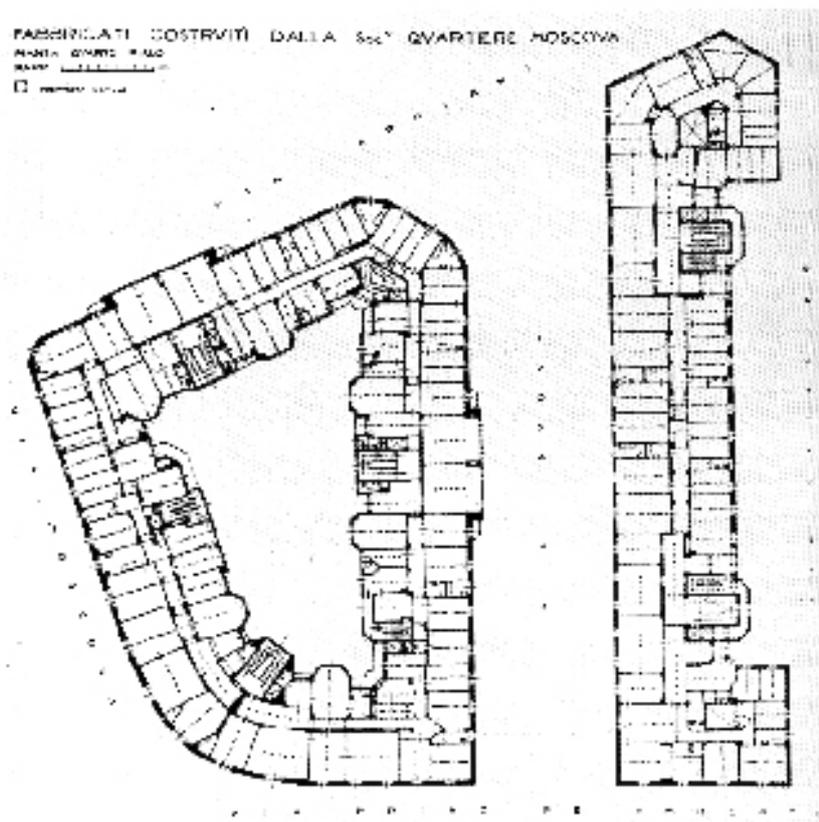
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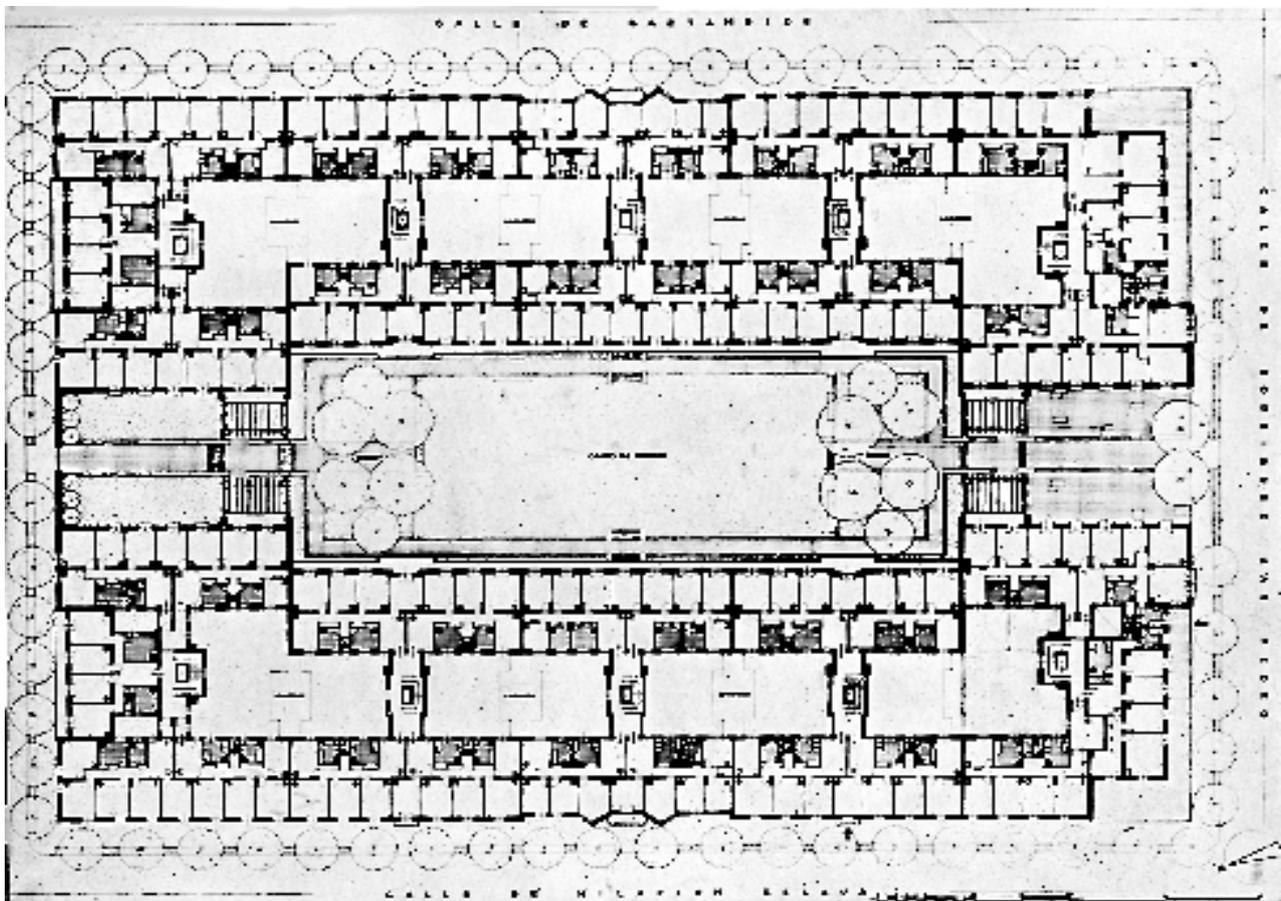
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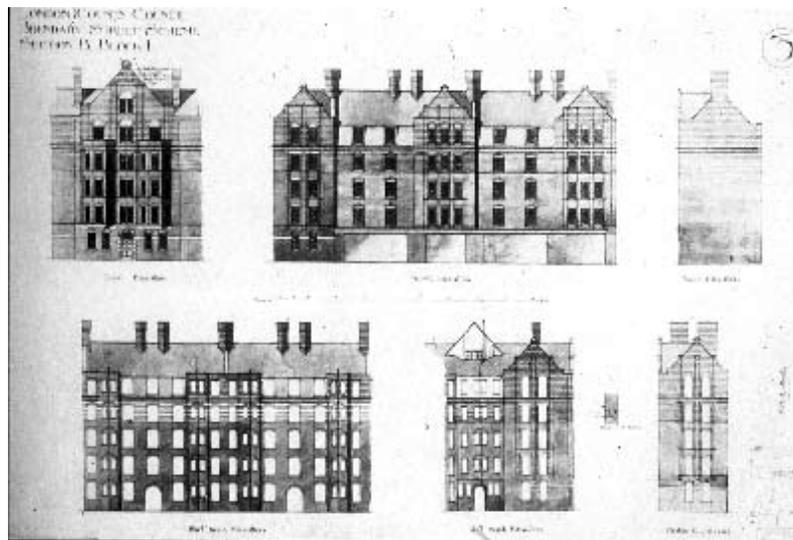
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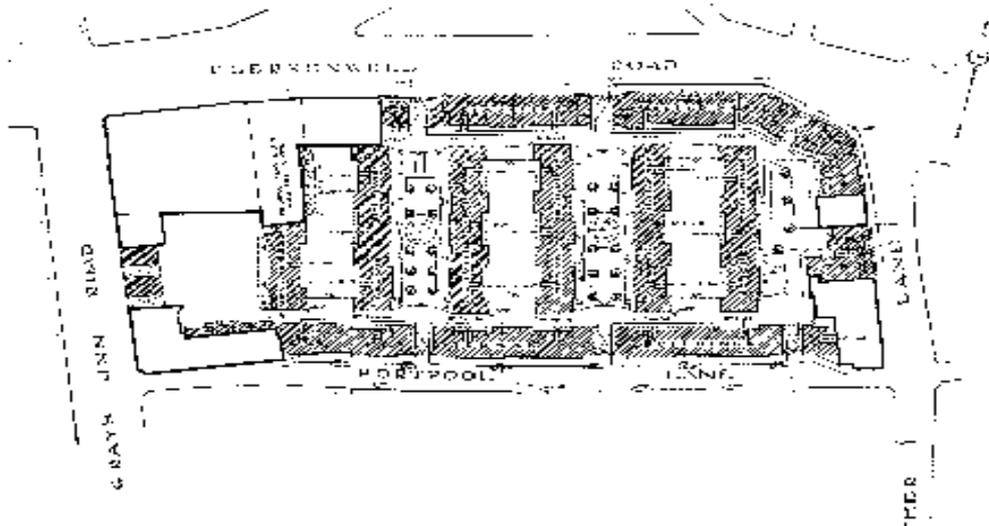
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Fig. 59: Ernest Hadden Parkes and others, Bourne Estate at Camden in London, 1901-05.
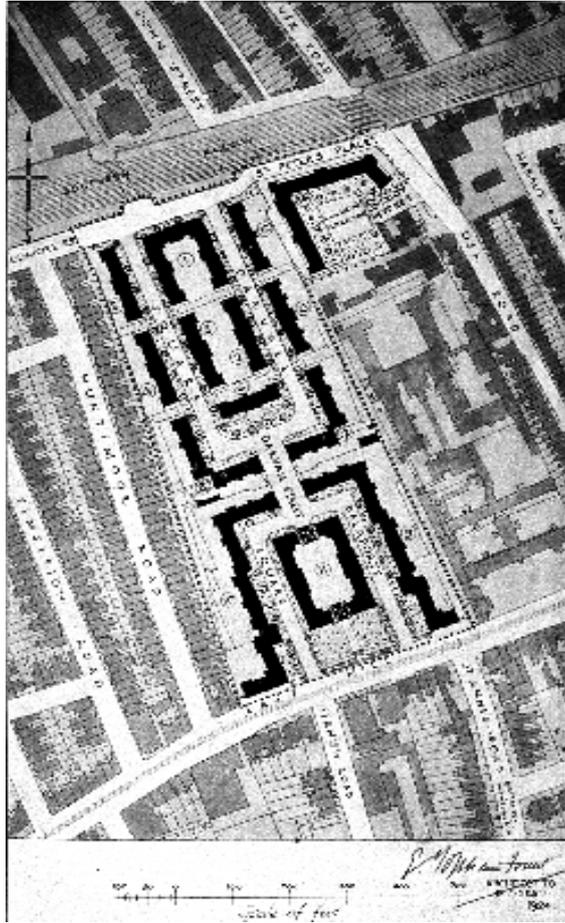
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Fig. 61: G. Topham Forrest and others, East Hill Estate at Wandsworth in London, 1924-29.

Fig. 62: Louis de Soissons and Grey Wornum, Larkhall Estate in London, 1925.

SECTION of the Albion Road front.
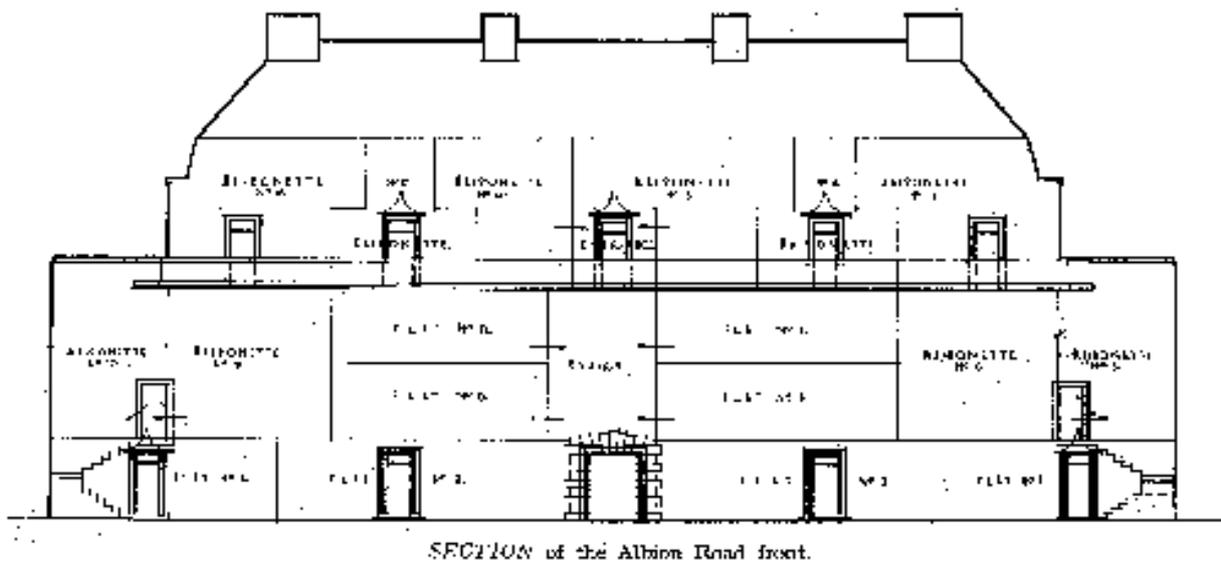
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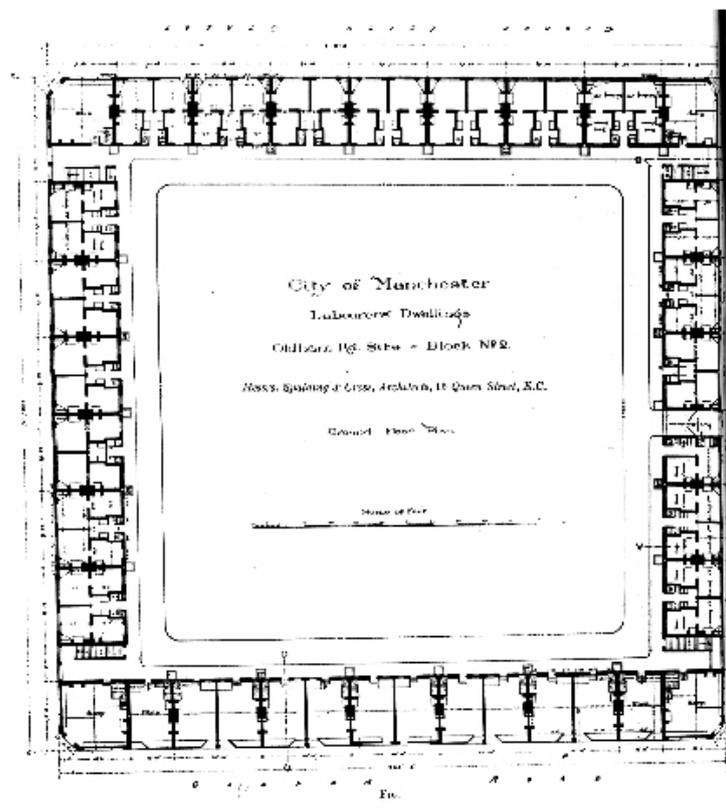
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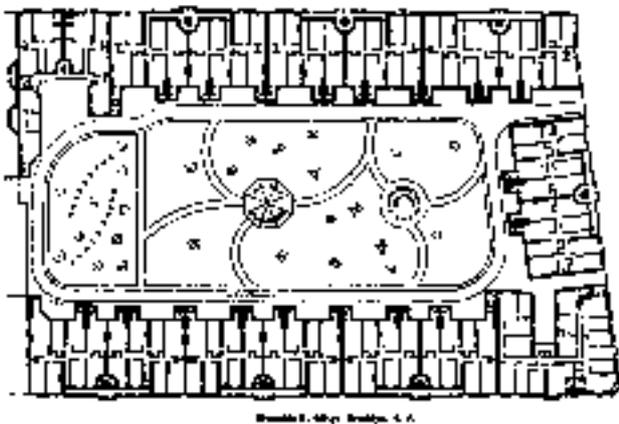
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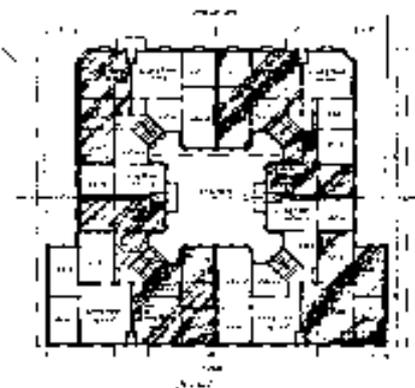
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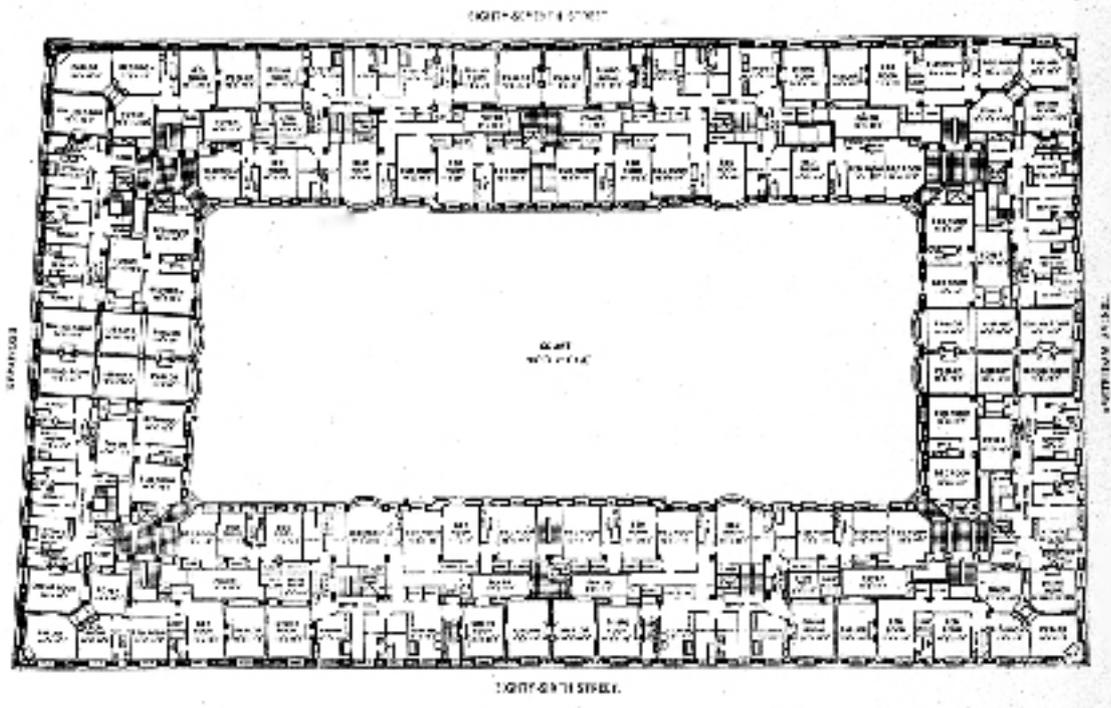
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Fig. 73: H. Hobart Weekes, The Belnord at Broadway in New York, 1908-10.

Fig. 74: Wetmore and Warren, apartment block at Park Avenue in New York, 1918.
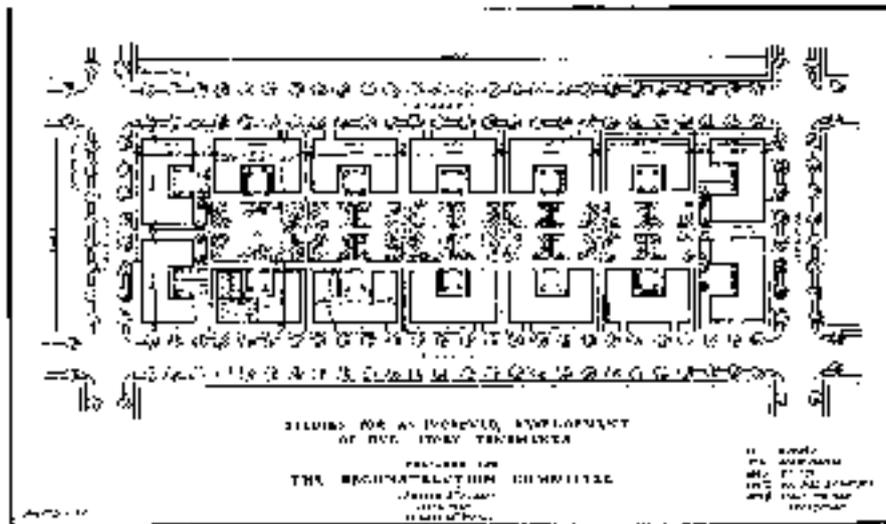
Fig. 75: Andrew J. Thomas, urban block for the New York State Reconstruction Commission, 1919.
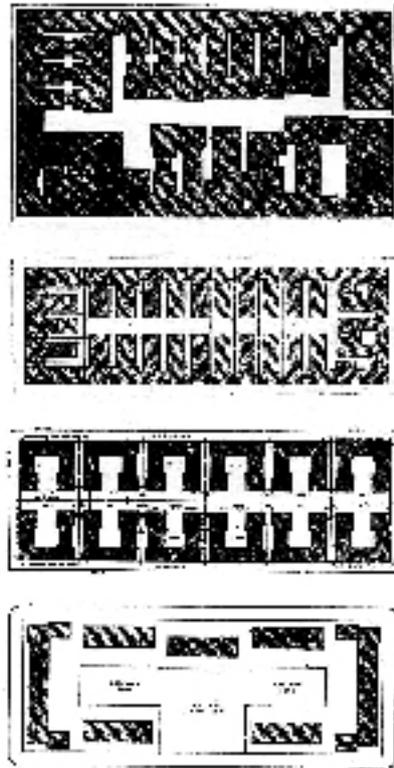
Fig. 76: Clarence S. Stein, block development in New York with Sunnyside Gardens as last step, in: The Town Planning Review, 1949.

Fig. 77: Clarence S. Stein, Hillside Homes at the Bronx in New York, 1932-35.
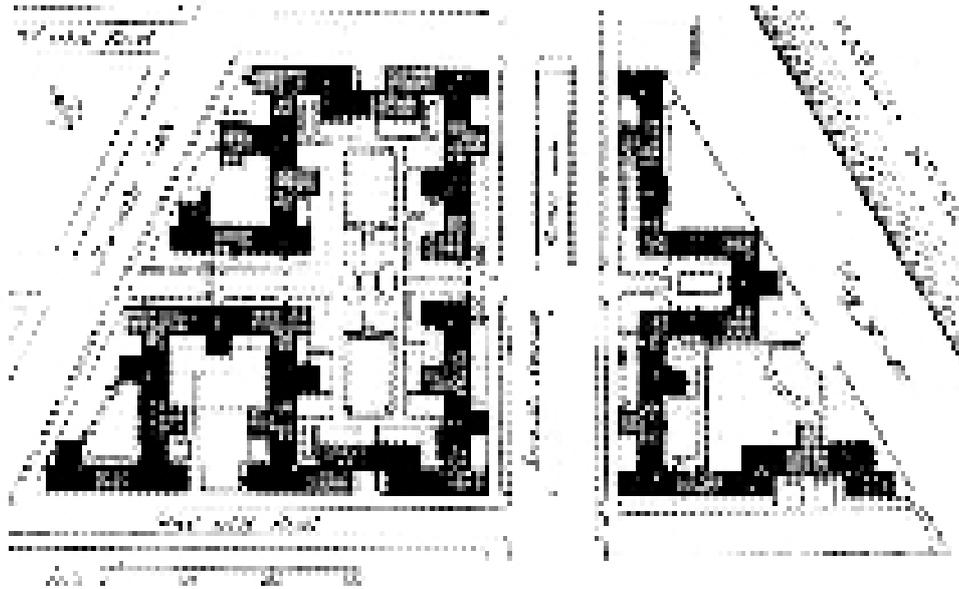
Fig. 78: Archibald Manning Brown and others, Harlem River Houses at 7th Avenue in New York, 1934-37.

Fig. 79: Archibald Manning Brown and others, Harlem River Houses at 7th Avenue in New York, .

Fig. 80: Eugene H. Klaber and Ernest A. Grunsfeld Jr., Michigan Boulevard Gardens in Chicago, 1929.