

The Modern Berlin Block: Spatial Evolution of a Typology through the 20th Century

By *Ilaria Maria Zedda**

The urban block did not completely disappear from the practice of urban design with the turn of the 20th century and the rise of modernist avant-garde in architecture. Many blocks built in Berlin throughout the last century prove the truth of this statement. This paper retraces this modern development of the Berlin block. Firstly, it presents reformed urban blocks built between the 1890s and the 1930s. Secondly, it summarizes the major occurrences that marked a crisis of the spatiality of the Berlin block by the mid-20th century. Thirdly, it explores the most remarkable contributions to the architectural debate of the 1970s that brought about a rediscovery of the spatiality of the traditional city. Then, it takes a closer look at the outcomes of this debate by focusing on the blocks designed for the International Building Exhibition IBA Berlin 1987. Finally, this paper draws a comparison between Berlin's reformed urban blocks and IBA blocks. In retrospect, numerous parallels can be drawn between them. For example, they both proposed similar spatial novelties and provided new relations between public and private spheres within the perimeter of the block. This paper sheds light on two important phases in Berlin's architecture and on their analogies, which are often overlooked. These insights remain significant for the ongoing debate on the future of Berlin and of other European cities.

Introduction

The most common narrative about early 20th-century architecture recounts the disappearance of urban blocks from the practice of urban design. When referring to those years, much of the literature reports of a time of crisis, even of “death” of the urban block,¹ its housing typologies, and its traditional spatial solutions. However, this common narrative often omits that, for much of the 20th century, urban blocks mostly continued to be built.

With the transition from the 19th to the 20th century, parallel to the rise of architectural avant-garde, some blocks were still built as *Mietskasernen* (“rental barracks”), while others changed this model through important spatial and typological novelties.

The city of Berlin, in Germany, on which this paper focuses, offers many examples of these reformed urban blocks. Their reformist aspects, compared to former models, ranged from improvements in the apartments with basic services

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1. P. Panerai, J. Castex, J. C. Depaule and I. Samuels, *Urban Forms. The Death and Life of the Urban Block* (Oxford: Architectural Press, 2004).

and better floor plans, to the transformation of the form and the spatiality of previous urban blocks. The inner courtyards were often left empty and open to exterior public spaces. Thus, the traditional spatial relations between interior and exterior of the block, between private and public spheres, were transformed, with spatial solutions that were often alien to former models.

Parallel to the building of these reformed blocks – still urban and inscribable to the model of the compact city (or, if one considers it spatially rather than morphologically, of what we could call the spatially-bound city) new ideas of city were spreading that aimed to overcome traditional urban models. These earliest avant-garde projects were the garden cities and the early estates of the *Neue Bauen*, which rejected traditional spatial solutions for urban living.

From the 1930s onwards especially, the success of these ideas implied a shift in architecture destined to last several decades and to affect architectural production. This is when the development of the Berlin block experienced a significant crisis, which lasted around forty years. The most acute phase of this crisis was in the first decades of urban reconstruction after WWII, when modernist urban models were highly influential in planning practice. It was not until the late 1960s that a trend-reversal occurred, with the spread of a new debate on the hitherto denied historical city. This debate also led to a renaissance of the urban block.

In the international architectural debate of the 1970s, Berlin represented not only a topic of discussion, but also – and most importantly – a space for the implementation of its contents. Themes such as “historical city” and “urban block” became central to the reflections and achievements of the International Building Exhibition *IBA (Internationale Bauausstellung) Berlin 1987*. This exhibition was organized to recover and reconstruct the former center of Berlin that in the 1980s was still affected by the damage of WWII (and divided by the Berlin Wall).

IBA 1987 aimed to restore the historical plan of the city, which it acknowledged as a basis for recovering urban identity.² Consequently, the IBA had to deal with the traditional components of urban design: streets, squares, blocks, and their courtyards. This was a significant trend-reversal in architectural and urban practice of the 1980s.

The section of the IBA known as *IBA-Neubau* (new buildings),³ on which this paper focuses, recovered and reinterpreted the Berlin block in its new projects, with design proposals that aimed to mediate between the dimensions of the traditional 19th-century Berlin block, modern models of life, and the standards of

2. C. Kromrei, *Postmodern Berlin. Wohnbauten der 80er Jahre/Residential Buildings of the 80s* (Salenstein: Niggli, 2018), 14.

3. The work of the IBA Berlin 1987 had two different focuses and approaches. On the one hand, there was “IBA-Altbau” (old buildings) that worked on restoration and modernization of existing, damaged buildings. On the other hand, there was “IBA-Neubau” (new buildings) that, with its approach known as “critical reconstruction”, worked on re-building, mostly from zero, areas that were severely destroyed by bombings of WWII and by construction plans of the 1960s. This paper focuses on IBA-Neubau. From this point onwards, then, it is this sector of the exhibition that is meant with the acronym “IBA.”

social housing.⁴ Obviously, in the 1980s the Berlin block could not be copied exactly as it was at the end of the previous century. Architects had to consider modern needs in their design proposals, including recent technological innovations such as elevators or underground parking spaces, which had become necessary for housing projects in the city. In addition to these functional novelties, the morphology and the resulting spatiality of the urban block were also transformed by the IBA. Instead of the small and often interconnected courtyards of 19th-century blocks, the IBA blocks feature more open spaces, with buildings distributed along their perimeter and not within them, and often with direct communication between street and courtyard.

These spatial solutions remind us of those already proposed in many reformed urban blocks at the beginning of that century. Therefore, it may be interesting to draw parallels between these two phases in the development of the Berlin block, with particular focus on their spatial characteristics.

This paper draws such parallels. Firstly, it introduces the reader to Berliner reformed urban blocks. Secondly, it sums up the major occurrences that brought to a crisis of the urban block in Berlin by the mid-20th century. Thirdly, it briefly explores the most remarkable contributions to the architectural debate of the 1970s that brought about a rediscovery of the spatiality of the traditional city. Then, this paper focuses on the blocks of the IBA Berlin 1987. Finally, after having illustrated case studies of both reformed and IBA blocks, this paper compares them, looking for analogies, underlining differences, querying their values and current relevance to urban design.

This paper brings together the themes and results of two ongoing research projects. The first is a doctoral thesis on the blocks designed for IBA Berlin 1987.⁵ The second is a research project on Berlin's reformed urban blocks.⁶

Re-drawings, archival materials and photos will support the arguments of this paper, which sheds insights on two important phases in Berlin's architecture and on their interrelations. These insights remain significant for the ongoing debate on the future of Berlin and of the European city.

4. The IBA was an initiative financed by the West Berlin Senate and most of its buildings were publicly subsidized. For more information on subsidized housing in West Berlin during the IBA years see for example M. Schonlau, "Die Berliner Wohnungsbauförderung," *Baumeister*, no. 5 (1987): 20-23.

5. Ongoing PhD project carried out by the author at the Department of Spatial Design at RWTH Aachen University (Germany) together with Prof. Uwe Schröder and at the University of Bologna (Italy) together with Prof. Annalisa Trentin. As part of this research at RWTH, the author supervises seminars called "Learning from IBA Berlin 1987".

6. "Der Berliner Reformblock 1890-1930" is the name of a current research project conducted at the Potsdam School of Architecture (Germany) on the initiative of Prof. Silvia Malcovati and Prof. Bernd Albers, with whom the author is currently cooperating as lecturer supervising seminars called "Atlas des Berliner Reformblocks"/"Der Berliner Block".

Literature Review

Interest in reform urban architecture was particularly keen in German literary production of the early 20th century, primarily in specialized journals of the time such as *Wasmuths Monatshefte für Baukunst* (Wasmuth's Monthly Booklets for the Art of Building, published between 1914 and 1930) or *Der Städtebau* (The Urban Design, published between 1904 and 1939), as well as in other journals that are still being published and were then in their beginnings, such as *Bauwelt* (World of Construction) or *Deutsche Bauzeitung* (German Journal of Building). From those years, other monographic contributions on reformed urban architecture are also worth mentioning, such as those featured in the series of books entitled *Berlin und seine Bauten* (Berlin and its Buildings), initiated in 1870 by the *Architekten- und Ingenieur Verein Berlin* (Architects and Engineers Association Berlin), or the book *Das Berliner Mietshaus* (The Berlin Rental House), written by the German architect Albert Gessner in 1909.⁷

After the 1930s, when the climax of reform architecture was over, this interest in Berlin models seemed to wane. In most of the international literature on modern architecture of the second half of the 20th century,⁸ rarely more than a few pages are devoted to this phase of Berlin's modern architecture. At best, the focus was on the reformed urban blocks of Red Vienna of the 1920s or Dutch reformed urban blocks of the 1920s and 1930s, such as those designed by Petrus Berlage and Jacobus Johannes Pieter Oud. Similar Berlin experiences were largely ignored.

It was rather in the 1970s that the interest in the reformed urban block re-emerged. In his book *Berlin auf dem Wege zu einer neuen Architektur* (Berlin on the Way Towards a New Architecture, 1st edition 1979), the German architecture critic and historian Julius Posener devoted great attention to reformed urban blocks in Berlin.⁹ In those same years, the German architect Josef Paul Kleihues, about to become director of the "new buildings" section of the IBA Berlin 1987, wrote on several occasions about Berlin's reformed urban blocks of the early 20th century.¹⁰ Kleihues saw them as an early stage of a modern development of the 19th-century urban block towards an open urban form, paving the way for the openness of the housing estates of the 1920s and 1930s. Kleihues' *excursus*

7. Architekten- und Ingenieur Verein Berlin (Ed.), *Berlin und seine Bauten* (Berlin: Wilhelm Ernst & Sohn, 1970 and 1974); A. Gessner, *Das Berliner Mietshaus* (Munich: Bruckmann, 1909).

8. Reference is made here, for example, to the following texts: K. Frampton, *Modern Architecture: a Critical History* (London: Thames and Hudson, 2007), L. Benevolo, *Storia dell'architettura moderna* (Bari/Roma: Laterza, 1960), W. J. R. Curtis, *Modern Architecture since 1900* (Berlin: Phaidon, 1982), S. Giedion, *Space, Time and Architecture. The Growth of a New Tradition* (Cambridge: Harvard University Press, 1941).

9. J. Posener, *Berlin auf dem Wege zu einer neuen Architektur* (Munich: Prestel Verlag, 1979), 319-361.

10. J. P. Kleihues (1978) "Edilizia chiusa ed edilizia aperta. Note sul caso di Berlino e osservazioni sull'isolato 270 a Wedding/Housing Blocks. Notes on the Case of Berlin and Comments on the Block 270 in Wedding," in *Lotus International*, no. 19: *L'isolato Urbano* (Milan: Electa, 1978, 62-75). In 1979, the same article was then published in German, with little changes and with the title "Berliner Baublöcke. Grundriss einer Typologie," *Werk: Archthese*, no. 31-32: *Stadt-Rückseiten/La face cachée de la ville*: 18-27.

concluded with the presentation of his block on Vinetaplatz, which will be mentioned later in this paper, where he proposed again the solution – neglected for almost half a century – of a perimeter block with an empty courtyard. The link between this project and some previous reformed urban blocks is thus clear to the readers.

More recently, among the most relevant and comprehensive contributions on reformed urban blocks are the texts by Wolfgang Sonne, professor of architectural theory and history at the Technical University of Dortmund,¹¹ as well as the doctoral thesis *Der Poröse Baublock* (The Porous Block) written at the ETH Zurich by the architect Karen Schmeink¹² under the supervision of Professor Vittorio Magnago Lampugnani.¹³

In the 1980s, after Kleihues' block on Vinetaplatz, IBA Berlin 1987 provided further opportunities to experiment with blocks. Also on that occasion, some outcomes provided spatial and formal solutions that are reminiscent of some reformed urban blocks of the early 20th century.

Literature on the IBA and its projects is very rich. It includes articles and monographic contributions in journals published not only in German but also in English, Italian, French, Spanish and Japanese. Moreover, among the most important contributions of those years are the catalogs published by the IBA itself. The most comprehensive (and updated) IBA catalogs, as far as it concerns the buildings of the exhibition rather than its theoretical contributions, are: *Internationale Bauausstellung Berlin 1984/87. Die Neubaugebiete. Dokumente. Projekte 7.* (The New Building Districts. Documents. Projects 7th volume, published in 1993) and *Internationale Bauausstellung Berlin 1987. Project Report* (Berlin, 1991).

For the sake of synthesis, this paper does not provide a complete list of all contributions on the IBA.¹⁴ What is of interest for the purpose of this paper is the search for a continuity of compositional, formal, and spatial solutions between the two phases of 20th-century Berlin block architecture that are being examined: reformed urban blocks and the blocks of IBA 1987.

11. See: W. Sonne, "Dwelling in the Metropolis: Reformed Urban Blocks 1890–1940 as a Model for the Sustainable Compact City," *Progress in Planning*, no. 72(2), (2009): 53-150; Sonne, *Urbanity and Density in 20th Century Urban Design* (Berlin: DOM Publisher, 2017).

12. K. Schmeink, *Der poröse Baublock* (Zurich: ETH Zurich, 2005).

13. Professor Lampugnani himself wrote on several occasions about Berlin's reformed architecture. See, for example: V. Magnago Lampugnani *Die Stadt im 20. Jahrhundert. Visionen, Entwürfe, Gebautes* (Berlin: Verlag Klaus Wagenbach, 2010), 279-284.

14. For a complete overview of the IBA publications up to the end of the 1980s please refer to the commented bibliography entitled *Veröffentlichungen der Internationalen Bauausstellung Berlin 1987*, edited in 1987 by the *Deutsches Institut für Urbanistik*. Among the most recent publications on IBA Berlin 1987 see: Kromrei, *Postmodern Berlin. Residential Buildings of the 1980s*, 2018; E. Akcan, *Open Architecture. Migration, Citizenship, and the Urban Renewal of Berlin-Kreuzberg by IBA-1984/87* (Basel: Birkhäuser, 2018); A. Salgo, *Neue Blöcke für die Innenstadt. Die IBA '87 in Berlin und der Wiederaufbau der südlichen Friedrichstadt* (Berlin: Gebr. Mann, 2021) as well as the exhibition catalogue of the Exhibition *Anything goes?* (Berlin: Kerber, 2021) held in spring 2021 in Berlin's Berlinische Galerie.

Some historians and critics, such as the German Dieter Hoffmann-Axthelm, pointed out the existence of these analogies as early as the 1990s, emphasizing first and foremost the political and economic similarities between different models underlying the formal and spatial ones.¹⁵ More recently, in his doctoral thesis on the urban blocks of IBA Berlin 1987 in southern Friedrichstadt, the German architect Andreas Salgo also wrote about a line of continuity between reformed urban blocks and IBA blocks.¹⁶ What is still lacking so far, however, is a clear comparison of the projects, a visualization of these similarities that confirms their existence. And this is what the present paper aims to do – albeit obviously only partially due to its limited length – through texts and drawings.

From the Rental Barracks to the Reformed Urban Blocks

The problems of the late 19th-century “Berlin of stone”¹⁷ are well known: excessive exploitation of plots, tiny yards, overcrowded and poorly lit flats, and a lack of hygiene – to name but a few. These problems are among the reasons why the so-called *Mietskasernen* (rental barracks) were highly criticized from the late 19th century onwards. In response to these problems, in Berlin, as in other European metropolises under the same conditions, it became necessary to work on alternatives. One of the earliest of these alternatives, developed at the end of the 19th century, was the one proposed by the English urbanist Ebenezer Howard with his “Garden city movement”, advocating an “escape” from the city to the countryside.¹⁸

Less than twenty years later, the modernist avant-garde claimed the overcoming of the traditional city with its blocks. This is, at least, the information on which much of the common narrative focuses. It is seldom reiterated, however, that in those years there were also architects who wanted to improve the city as it was and not to radically transform it, nor to escape from it.

Referring to the well-known schemes drawn by both Walter Gropius and Ernst May (Figure 1), which illustrate the architects’ wished development from a “city of blocks” to a “city of building rows”, German architectural historian and professor Wolfgang Sonne writes:

“Somewhere between the densely built-up blocks of the 19th century city and the rigidly north-south-oriented terraces 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.”

15. D. Hoffmann-Axthelm, “Der Berliner Baublock,” *Bauwelt*, no. 17/18 (1997): 922-925.

16. Salgo, *Neue Blöcke für die Innenstadt*, 2021, 358.

17. W. Hegemann, *Das Steinerne Berlin 1930* (Basel/Berlin/Boston: Birkhäuser, 1963).

18. E. Howard, *To-morrow: A Peaceful Path to Real Reform* (Sonnenschein: London, 1898).

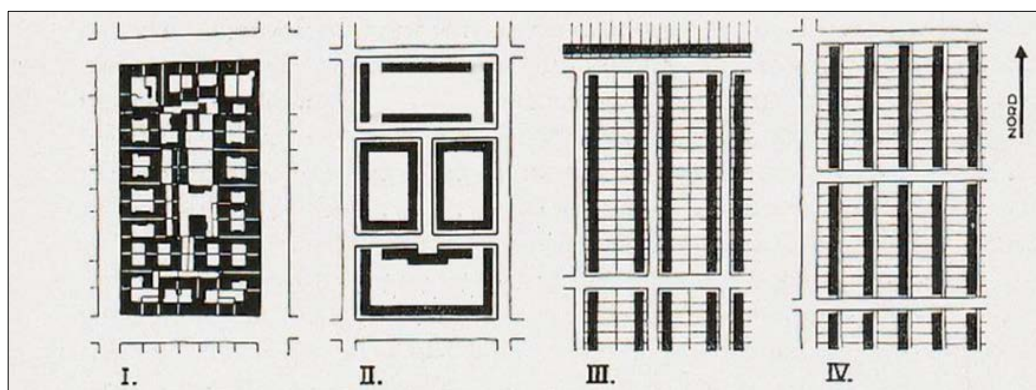


Figure 1. *Schematische Darstellung der Entwicklung des modernen Bebauungsplanes* [Diagram Showing the Evolution of the Modern Development Plan] by Ernst May
 Source: E. May in *Das neue Frankfurt. Heft 2/3* (1930): 34.

Like Sonne in his article “Dwelling in the metropolis”,¹⁹ from which this quote is taken,²⁰ the present paper argues that the urban block did not disappear in the early decades of the 20th century. It rather markedly changed. That is why it is possible to say that reformed urban blocks are modern blocks. In this regard, it might be appropriate to provide a definition of reformed blocks, again in the words of Sonne:

“These are blocks intended to reform the modern city, instead of rendering it obsolete. They are blocks which define public space by directly addressing the street, and don’t destroy it with an autonomous pattern. These blocks face public space with meaningful facades, instead of ignoring that space with shapeless building surfaces and finally, these are blocks which contribute to a lively atmosphere in the city with a mixture of functions rather than killing it off with mono-functionality (...).”²¹

To the definition of reformed urban blocks provided in this quotation, in itself already very comprehensive, some further remarks should be added that are significant for this paper. With these reformed blocks, Berlin made the “leap” towards the so-called *Großform* (big form) – that is, towards a way of conceiving and building architecture that departed from the traditional binomial “one house’s plot = one owner”, typical of residential architecture up until then. On the contrary, reformed urban blocks were conceived on a scale that corresponded to several plots grouped together. This had, of course, significant spatial consequences.

Before looking more closely at spatial issues, however, a few economic and social details should be underlined. The housing reform was primarily driven by private parties; mostly housing cooperatives,²² but also entrepreneurs as well as

19. Sonne, “Dwelling in the Metropolis: Reformed Urban Blocks 1890–1940 as a Model for the Sustainable Compact City,” 2009: 53-150.

20. Ibid, 55.

21. Sonne, *Urbanity and Density in 20th Century Urban Design*, 2017, 53.

22. Among the most influential housing companies in Berlin in this respect were, for example, the *Berliner Spar- und Bauverein* (Today: Berliner Bau- und Wohnungsgenossenschaft von 1892) and the *Charlottenburger Baugenossenschaft*.

health insurance companies and associations. The aim of these companies was to achieve quality housing for the working class, improving the tenants' life without renouncing urbanity.

Reformed urban blocks were built over a period of around forty years. Their earliest examples, such as the *Riehmers Hofgarten* (1881–1899) by Wilhelm Riehmer or the *Weisbachgruppe* (1899–1905) by Alfred Messel date back to the 1890s, while the most recent examples are from the late 1920s and early 1930s. Among these are the so-called *Sonnenhof* (1925–1927), by Erwin Anton Gutkind and the housing complex in Sansibarstraße (1928–1929) by Stephan von Zamojski and Heinrich Ivan. Even some housing estates by Bruno Taut, such as Schillerpark (1924–1930), show spatial solutions that permit us to (at least partly) describe them as reformed urban blocks, their buildings also being organized around a courtyard. These late examples, however, show clear signs of a process of opening of the interior space of the block towards the exterior spaces that are much more marked than in previous models of reformed urban blocks. One could speak of some *Siedlungen* (housing estates) of the 1920s as hybrids.

Due to the simultaneous presence of different paradigms – garden cities, reformed urban blocks, and *Siedlungen* – in some models it is questionable whether we are dealing with the one or the other case. Contrary to what Gropius and May's scheme might suggest, therefore, reformed urban blocks were not built “after” the rental barracks and “before” the uniformly oriented rows of the modern. All these phenomena existed in parallel. It is not surprising, therefore, that especially in the suburbs we can see models that result from their intermingling.

Apart from the aforementioned unity of conception, most reformed urban blocks also share the way in which they define spaces, which is markedly different from 19th-century blocks. Reformed blocks feature bigger and more open inner courtyards. These courtyards are often left empty and used as gardens, free of interior buildings and thereby providing their tenants with communal parks. Moreover, in many cases the courtyards of these reformed blocks were opened towards the street by means of gateways, allowing communication between private and public spaces. Thus, not only the community of the tenants, but also the whole neighborhood, could (and still can) profit from these urban spaces.

In some reformed urban blocks, the spatial novelty consists not so much of an empty courtyard but rather of a street crossing the block, thereby forming hybrid spaces between the public and the private spheres.

The following paragraphs will present three selected case studies, all built before 1910, that illustrate different spatial solutions.

Reformed Urban Blocks - Case Studies

Amalienpark Residential Complex (1896–1897)

The Amalienpark residential complex in the district of Pankow, designed by the architect Otto March, was built in 1896–1897 for the housing company *Landhaus-Baugesellschaft Pankow*.

March's project for Amalienpark is clearly and openly unitary, even though it is composed of nine separate houses organized around a public garden. Due to this feature, this project can be defined as an open block.

The open block in Amalienpark (Figure 2) is relatively introverted in relation to the external streets. Almost all of its houses are accessible from the interior public garden, except for the two buildings facing the Breite Straße to the south, whose entrances directly open onto this street.



Figure 2. *Amalienpark: Photo from the Inner Park and Ground-Floor Plan*

Source: Left: Photo by the author (July 2021). Right: Drawing made for the seminar “Atlas des Berliner Reformblocks” at the Potsdam School of Architecture (2020) and further edited by the author (2021). Redrawn after: H. Engel, P. -A. Albrecht, G. Wolf and C. Wolf, *Der Amalienpark in Pankow und sein Architekt Otto March. Schriftenreihe Meisterwerke Berliner Baukunst, Band 7* (Berlin: BWV Berliner Wissenschaftsverlag, 2007).

A closer look at the houses reveals an architectural language quite typical of Berlin's reformed architecture of those years, with several loggias, arches and dormer windows. The height of the houses around the garden is uniform, as is their materiality and, to a large extent, also their typological features. On the whole, the houses in the block have more than 60 apartments. All of these houses have four storeys, each of which is usually divided into two apartments (in German “*Zweispänner*”). Besides the already mentioned exceptions of the two buildings to the south, also the building to the north is different from the houses along the long sides of the block. It is a small “block within a block” that results from the grouping of two almost symmetrical “*Zweispänner*” houses. The result of this composition is a building with a closed perimeter around a small, private courtyard. This bounded courtyard represents the only exception in an ensemble characterized by a much more open spatiality, where landscape and architecture meet and combine, forming a whole that is still much appreciated by its residents.

Housing Block Near the Schöneberg Rathaus (1906–1907)

Close to the city hall of the district of Schöneberg, there is a block known as the *Wohnhofanlage am Rathaus Schöneberg* (Residential courtyard complex by Schöneberg's city hall), designed by the architect Paul Mebes²³ for the housing company *Berliner Beamtenwohnungsverein* and built in 1906–1907.²⁴

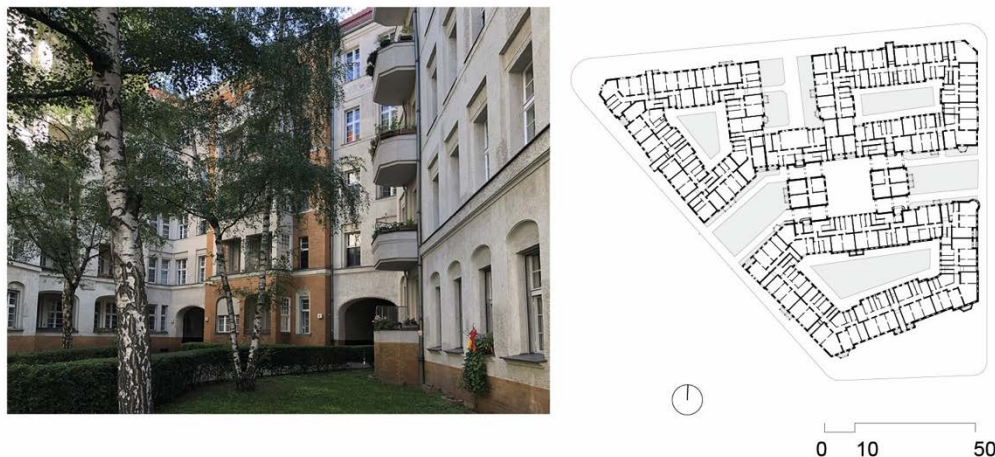


Figure 3. *Housing Block Near the Schöneberg Rathaus: Photo on One of the Open Courtyards and Ground-Floor Plan*

Source: Left: Photo by the author (July 2021). Right: Drawing made for the seminar “Atlas des Berliner Reformblocks” at the Potsdam School of Architecture (2020) and further edited by the author (2021). Redrawn after: Schmeink, *Der Poröse Baublock. Raumbildendes Element im Berliner Städtebau um 1900*, 2005: Tafel 50.

The block (Figure 3) includes 220 apartments, all equipped with basic services. Many of these apartments face both the street and the courtyard.

The most significant differences with respect to previous 19th-century blocks lie not only in the apartments, but also at the root of the design concept itself. Indeed, this block is a single project and does not result from the composition of contiguous but separate houses, each on its own plot. This unity of its design is expressed by a uniform outer aesthetic. The facades on the street are characterized by the presence of many loggias and are more decorative than those giving onto the enclosed courtyards. With respect to this last feature, it can be said that Mebes' block in Schöneberg reacts differently to the various outer spatial situations, depending on whether its boundary fronts face inwards or outwards.

This block, which has a uniform height of five storeys, shows an interesting range of spatial hierarchies. Within its borders, one encounters different spatialities: three courtyards of honor (“*Ehrenhöfe*”) open towards the street, three completely closed courtyards and, finally, a central, crossable, and semi-private courtyard. All

23. Paul Mebes was one of the architects who, together with Alfred Messel, Erich Köhn and Paul Kolb, made the major contribution to reform architecture in Berlin.

24. See: *Wohnungsbau der Architekten für die Beamten-Wohnungs-Verein zu Berlin eG* (Ed.), *Paul Mebes und Paul Emmerich: Meister der gemäßigten Moderne* (Berlin, 2015), 20-23.

entrances to the staircases are from the street (or from the open passage in the central courtyard/square) so that the enclosed courtyards are for the exclusive use of residents.

During the bombing raids of WWII, the building suffered extensive damage and today two of its enclosed courtyards are also open to the street after some of the buildings were lost. The project illustrated in Figure 3 corresponds to the original state of the block before the war.

Ideal-Passage (1907–1908)

Contemporary with the block in Schöneberg described above is the project for the Ideal-Passage in the district of Neukölln, designed between 1907 and 1908 by the architects Wolf and Paul Kind for a housing company called Ideal, which gave the project its name.

It was previously remarked that most reformed urban blocks either have empty courtyards, without internal buildings, or are crossed by a street. In this respect, the Ideal-Passage project is particularly interesting in that it somehow combines both these spatial solutions. It consists of four courtyards connected by a pathway that is accessible via two portals on opposite sides of the block (Figure 4). Hence, the project can be described as an enfilade of four interconnected green courtyards, allowing the crossing of the entire block.

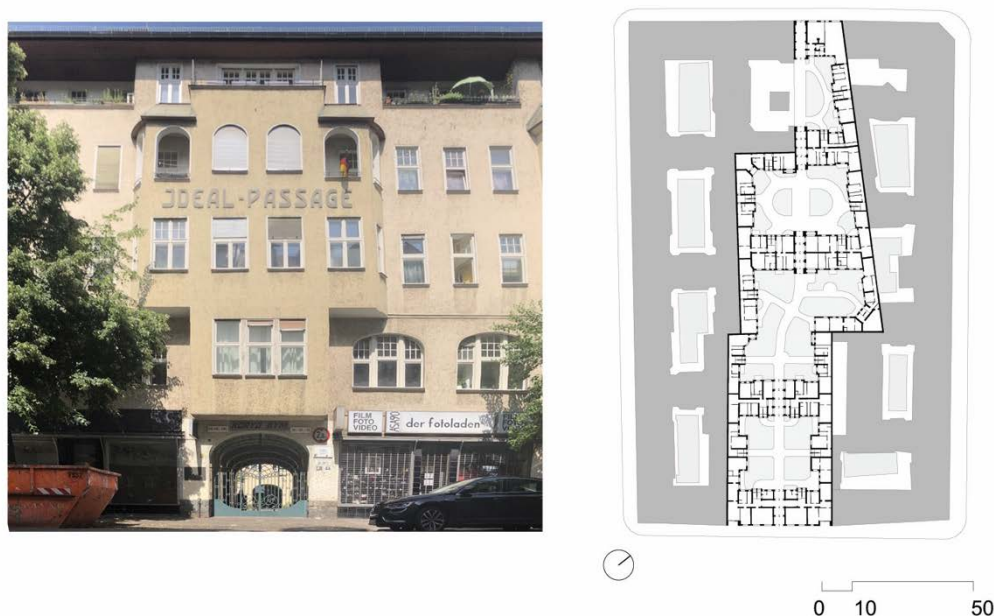


Figure 4. *Ideal-Passage. Photo of the Main Entrance on Fuldastraße and Ground-Floor Plan*

Source: Left: Photo by the author (July 2021). Right: Drawing made for the seminar “Atlas des Berliner Reformblocks” at the Potsdam School of Architecture and further edited by the author (2021). Redrawn after: Schmeink, *Der Poröse Baublock. Raumbildendes Element im Berliner Städtebau um 1900*, 2005: Tafel 29.

The size of the four interconnected courtyards is not so different from those of the adjacent 19th-century houses. Indeed, the Ideal-Passage project was realized

inside of a typical, densely-built block from the late 19th century. Its major differences from previous rental housing emerge especially when we look at the equipment of its apartment, provided with private bathroom and kitchen. In total, before being partly damaged in WWII, the Ideal-Passage had 171 apartments – mostly 1- or 2-rooms.

The houses have a uniform height of five storeys. The architectural language implemented in their facades changes according to whether these facades face the street or the courtyards, and also from one courtyard to the other. This variety was not the outcome of a fragmented development, but it was envisioned as part of the original project. Finally, all the accesses to the houses are from the internal courtyards, even for the buildings facing the streets, where the ground floors accommodate small commercial enterprises. From the public streets, the enfilade of courtyards inside the Ideal-Passage remains hidden: a microcosm in the heart of the lively district of Neukölln.

The spatial strategies outlined through the examples shown above allow us to conclude that reformed urban blocks transformed the traditional block by gradually opening it up to the outer public spaces and thereby making it “porous”.²⁵ However, reformed blocks did not abandon the concept of the urban block. This process of abandonment was realized, in those same years, by the 20th-century architectural avant-garde.

From the Block to the Row and the City of Architectural Objects

At the beginning of the 20th century, reformed urban blocks were flanked by other architectural models that also aimed to overcome the weakness of the city of the tenement blocks. In the aforementioned sketch illustrating the development “from block to row”, Walter Gropius – and, a year later, Ernst May – outlined what they wished for the evolution of urban models: from the compact tenements’ blocks to the rows of the *Neue Bauen* and, thus, to the urban models proposed by the Modern Movement. For Gropius and May reformed urban blocks were, therefore, a temporary phenomenon that had to be overcome with new housing models. And yet the urban block was not completely overcome until the 1930s, but coexisted with the first achievements of modern architecture.

After WWII, however, the situation changed markedly. Berlin was significantly affected by the consequences of the war. Not only was the city severely bombed and the plans of the 1960s further transformed its urban fabric, but the city was also divided for almost thirty years by the Berlin Wall. As a result, the image and the identity of the city were destroyed.

In the first decades of post-war reconstruction, the desire to break with the past, as well as the need for rapid and cost-effective reconstruction, made the models proposed by the Modern Movement particularly appealing. Some of the outcomes of this reconstruction were welcomed by the public. A good example of

25. Schmeink, *Der Poröse Baublock. Raumbildendes Element im Berliner Städtebau um 1900*, 2005.

this is the housing estate that resulted from the *Interbau* building exhibition of 1957. For the time, these architectures offered attractive, healthy, and well-oriented apartments. The critical aspect of *Interbau* and of other similar projects of those years lies rather in the spaces between the houses: a huge, green, public space incapable of acting as meeting places and of generating identity.

Many of the urban visions proposed by the masters of the Modern Movement – Hans Scharoun’s “city landscape” for example – were based on the principle of functional zoning and proposed an urban scenario of solitary buildings in a green and indefinite public space. The layout of the historical city was ignored, and the relations between street and architecture were weakened. Thus, the conception of a city of interconnected inner and outer spaces, as the historical city used to be, was replaced by a new spatial conception of the city as “a formal composition of buildings, which aimed at canceling the boundaries between inner and outer spaces”.²⁶ This is the situation that the German architect Uwe Schröder bitterly describes using the terms *Stadtvergessenheit* (“oblivion of the city”) or *Raumlosigkeit* (“spacelessness”).²⁷

This situation worsened in later examples of housing estates, such as the *Großsiedlung* (large housing estate) known as *Gropiusstadt*. Whereas *Interbau* still featured good solutions for its apartments and was in a central position in the city, these large estates lacked both these qualities.

In these modernist housing estates built after WWII, we can no longer speak of public and private spaces that interact and mix. Instead, these spaces melt together to the point that private exterior spaces disappear. What remains is one, generic, “fluid” public space between houses. The idea of a city of many interconnected spaces – streets, squares and courtyards – was thus replaced by the idea of a city of objects²⁸ in one, big space.

The dominant modernist idea of an absolute and superordinate space, which characterizes the first decades of post-war urban planning practices, also had obvious consequences for architecture and the city. The process of opening the spaces of the courtyards, which began with the reformed urban blocks and was continued by the *Siedlungen* of the 1920s, was thus taken to the extreme, especially after WWII. It was not until the late 1960s that architects returned to a discussion of the importance of the “city of spaces”.

26. Quote taken from: A. Denk, U. Schröder and R. Schützeichel, *Architektur Raum Theorie* (Berlin/Tübingen: Wasmuth, 2016), 14. Translation by the author. Original quote: “[...] einer formalen Komposition baulicher Elemente, welche darauf abzielte, die Grenzen zwischen Innen und Außen weitgehend aufzuheben.”

27. Ibid, 14-15.

28. C. Rowe and F. Koetter, *Collage City* (Cambridge Mass.: The MIT Press, 1978), 62.

Back to Urban Spaces: The 1970s and the “Spatial Turn” in the Architectural Discourse

From the 1960s, several architects began to question the theories and the models proposed by the Modern Movement. Consequently, the then-dominant functionalist approach to projects stood alongside others, based on the study of the typology and the morphology of historical cities.

The contributions to the typo-morphological approach already offered by Italian architects such as Saverio Muratori in the 1950s and later by younger architects like Aldo Rossi, Giorgio Grassi or Carlo Aymonino, are well known.²⁹ From the 1970s onwards, parallel to this “Italian discourse” and intensely interwoven with it, a widespread debate arose at an international level.³⁰ The protagonists of this architectural debate shared a criticism of the modernist city, of its spatial conceptions, favoring a rediscovery of the values of the historical city as it was until the beginning of the 20th century.

The concepts of “type” and “form” played a leading role in these debates. But what role did the concepts of “space” and “spaces” play? In those years, a spatial debate was largely overlooked. However, some relevant changes from modernist conceptions of space can be traced in theoretical contributions such as the book *Stadtraum in Theorie und Praxis* (Urban Space in Theory and Practice) by the Luxembourgian architect Rob Krier, first published in 1975.³¹ This book, although not introducing a theory of space in the narrow sense,³² significantly contributed to the debate against the modernist denial of traditional urban spaces, strongly urging instead that the spatiality of the historical city be recovered. Krier writes of (and designs) a city composed of courtyards, streets and squares – that is, of all those urban spaces that the Modern Movement denied. From the paradigm of the city of objects in an absolute space, Krier returns to write of a city of many spaces.³³

One can detect in this context the earliest evidence of an architectural “spatial turn”³⁴ taking place, which contributed to bringing the urban block back to the center of the architectural debate.³⁵

29. On the contents of the 1970s Italian debates on architectural type and morphology see: M. Caja, M. Landsberger and S. Malcovati, *Tipologia architettonica e morfologia urbana* (Milan: Il Libraccio, 2014).

30. On the influences of the Italian debate of the 1970s out of Italian borders see: M. Caja, M. Landsberger and S. Malcovati, *Tipo, Forma, Figura* (Milan: Il Libraccio, 2016).

31. R. Krier, *Stadtraum in Theorie und Praxis* (Stuttgart: Kramer, 1975).

32. Denk, Schröder, and Schützeichel, *Architektur Raum Theorie. Eine kommentierte Anthologie*, 2016, 521.

33. The fact that the title of the book, *Stadtraum* (“Urban Space” in English) refers to “one” space using the singular form, even though Krier writes of a city made up of many spaces (courtyards, streets, squares), confirms that in those years the spatial conception was changing but was also still under the influence of modernist paradigms and terminology.

34. The concept of “spatial turn”, related to the 1980s, is generally referred to philosophy and social sciences. However, also architecture witnessed its outcomes. See: Denk, Schröder, and Schützeichel, *Architektur Raum Theorie. Eine kommentierte Anthologie*, 2016, 8

35. Several publications and initiatives bear witness to the “rebirth” of the urban block in those years. See, for example: Panerai, Castex, Depaule and Samuels’ *Urban Forms. The Death and Life of the Urban Block*, first published in French in 1977; the 19th issue of the Italian magazine *Lotus*

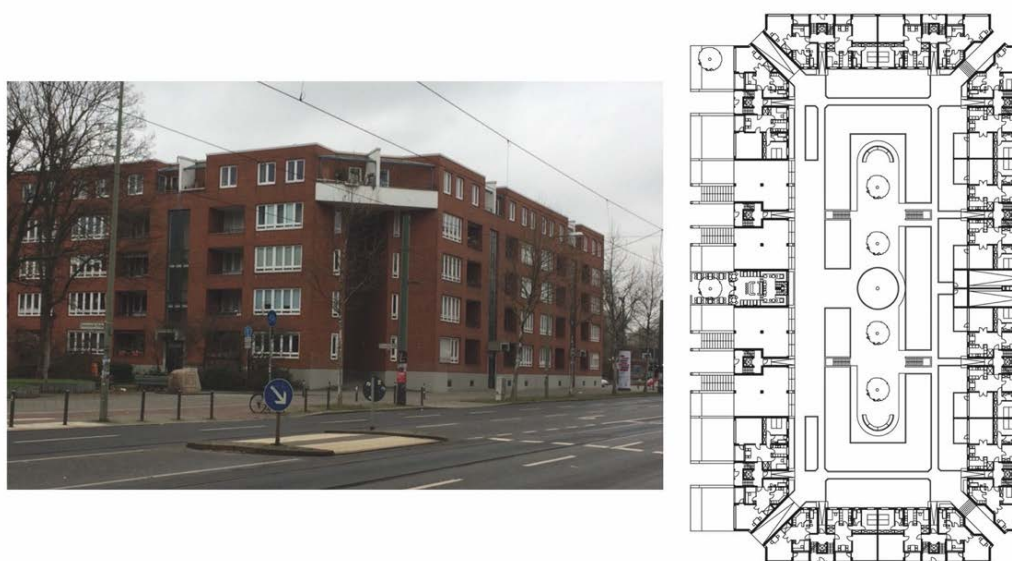


Figure 5. *Block 270 on Vinetaplatz. View from the Street and Ground Floor Plan*
 Source: Left: Photo by the author (2018). Right: © Kleihues+Kleihues.

Within this context the urban block also returned to being a design issue. In Berlin, one of the earliest applications of these theories in a project was the block on Vinetaplatz in Wedding, designed in the 1970s (1971–1977) by the German architect Josef Paul Kleihues (Figure 5). This is one of the earliest projects built in Berlin after WWII based on a closed perimeter block.³⁶

In 1977, when construction of the block on Vinetaplatz was in its final stages, the initiative *Konzept Ritterstraße*³⁷ gave Rob Krier the opportunity to implement the theories of his book *Urban Space* in the reconstruction of an urban block in the heart of Kreuzberg. Both Vinetaplatz and *Konzept* represent the earliest practical experiments towards the urban design approach by IBA Berlin 1987.

Back to the Block: IBA Berlin 1987

IBA Berlin 1987 was a broad initiative of urban reconstruction officially initiated in 1979 according to the wishes of the West-Berlin Senate. The IBA ran for eight years, from its foundation in 1979 to 1987, when it officially opened (and ended). Its goal was to involve architects and planners in the design process for the

International published in 1978, entitled *The Urban Block*, or the book published on the occasion of the first S.I.A.C. (Seminario Internacional de Arquitectura Contemporanea) held in Barcelona in 1980, entitled “*La manzana como idea de la ciudad*” [The block as idea of the city]. In Germany, important contributions in this direction were, for example, the book by F. Werner, F. Popp, K. Schallhorn and H. Schmalscheidt entitled *Der Baublock. Straße Wohnung Hof*, or the book *The Urban Block and Gotham City*, which illustrated the results of Berlin’s 1976 Summer Academy curated by O. M. Ungers during his years of teaching at Cornell University

36. See: Kleihues, “Berliner Baublöcke. Grundriss einer Typologie,” 1979: 18.

37. See: K. Friebe, *Experiment Wohnen - Konzept Ritterstraße* (Berlin: Archibook, 1981).

reconstruction of former central areas of Berlin, turned into peripheries of their half of the city because of the Berlin Wall. Within this context, and after the numerous unsuccessful urban planning initiatives conducted in Berlin after WWII, IBA Berlin 1987 provided an occasion to apply the outcomes of the debates of the 1970s in practice.

The IBA helped to converge – and re-interpret – both the theoretical principles of the Italian debate of the 1960s and 1970s, which had begun to reflect on the meaning of the historical city and of its urban structures, and postmodern spatial theories. While the former outlined the strict connection between architectural typologies and *forma urbis*, the latter overcame an absolute conception of space, which regained instead its relativity, as well as its collectiveness and sense of identity. IBA Berlin 1987 aimed, at least in its declared intentions, to recover not only the historical plan of the city, but also its spatiality and the dialectics of its spaces.

While the organizers of the IBA criticized many principles and practices of the Modern Movement, at the same time they acknowledged its architectures as an integral part of Berlin's history. Thus, the IBA, in its twofold aim of referencing the past and improving the shortcomings of previous urban models, not only returned to traditional typologies but also used solutions alien to the historical city, such as rows or towers. Despite such heterogeneity, all IBA interventions were subordinated to the main aim of recovering the historical urban fabric and the traditional Berlin block. The IBA's challenge to restore the form and image of the historical city by reassuming its former urban fabric and its blocks as a starting point in the presence of buildings constructed precisely as a reaction to these traditional urban components, can be seen as the attempt to apply Colin Rowe's advice to "allow and encourage the object to become digested in a prevalent texture or matrix".³⁸

Among the spaces of the traditional city that it assumed as a reference for its designs, the IBA concentrated especially on those of the block, that is, on courtyards and interior passages. Squares and streets remained rather in the background, as "contours" to the blocks' projects.

When it comes to spatial issues regarding the IBA blocks, it can be observed that they have little in common with the spatiality of the 19th-century block. Referring to the block in Ritterstraße Nord, one of the case studies that this paper examines more closely, the architect and scholar Katharina Borsi observes "despite its formal similarities [the block in Ritterstraße] creates spaces quite differently to the nineteenth century block".³⁹

Borsi's remarks are valid for most IBA blocks, not only for the one in Ritterstraße. Indeed, in several other IBA blocks we also witness a decisive opening of the spaces of the courtyards with respect to those of the traditional 19th-century block. In some cases – the block in Ritterstraße Nord (built: 1982–1988, masterplan by Rob Krier), but also in the smaller "Block 4" (built: 1987–1991, masterplan by

38. C. Rowe and F. Koetter, *Collage City* (Cambridge Mass: The MIT Press, 1978), 83.

39. K. Borsi, N. Porter and M. Nottingham, "The Typology of the Berlin Block," *Athens Journal of Architecture* 2, no. 1 (2016): 62.

Bohigas, Martorell, Mackay) between Checkpoint Charlie and the site of the former Prinz Albrecht Palais – the inner courtyard was left free of buildings and used as a communal garden, accessible also to the public. In other cases, as in the Block am Berlin Museum (built: 1984–1986 Masterplan Kollhoff and Ovaska) or in Block 7 in Friedrichsvorstadt (built: 1987–1990, Masterplan Ungers and Faskel) the block is divided by a public street. Furthermore, some examples of IBA blocks feature a sequence of interconnected courtyards, others are completely open, allowing public access to a garden bordered by urban villas.

Considering the variety of these solutions, it can be said that, if there are few links between the spatiality of the 19th-century block and of IBA blocks, some of the spatial solutions implemented in the latter are rather reminiscent of those featured in the reformed urban blocks of the early 20th century. The case studies presented below lend themselves well to illustrating this statement.

IBA Blocks - Case Studies

Block in Ritterstraße Nord (1982–1988)

In very few cases, the IBA managed to fully restore the historical perimeter of a 19th-century block. The most complete example in this respect is probably Rob Krier's block in Ritterstraße Nord (Figure 6). This project, built between 1982 and 1988, fits within the perimeter of the block as it was before being destroyed by the bombing raids of WWII.

This IBA block re-establishes the perimeter of the previous block. However, with respect to typological and spatial aspects, the former is very different from the latter. Instead of numerous small courtyards, Krier's block has only five, much larger ones. Of these courtyards, four are used as semi-private gardens. The central courtyard, from which it is possible to access all the others, is instead conceived as a public square. This square can be crossed on foot (in all directions) or by car (along the east-west axis).

In addition to its four courtyards and its square, other spatial solutions in this block are worth mentioning: the two streets that cross the block, for example, which intersect in the central square mediating between the public and the private.

Although the block in Ritterstraße resulted from a single master plan, in this block the IBA pursued a division into different houses, designed by different architects according to the overarching guidelines set by Rob Krier.⁴⁰ This diversity despite unity is clearly shown on the façade, where the houses look separate, as if reflecting a (missing) plot division in the block.

The project, which includes more than 300 apartments, features a great complexity of typological solutions. Most of its houses have two apartments on

40. Together with Rob Krier, the architects who collaborated on this block are: D. Bangert, B. Jansen, S. Scholz, A. Schultes (Berlin); B. Benz Müller, W. Wörner (Berlin); A. Liepe, H. Steigelmann (Berlin); E. Feddersen, W. von Herder & Partner (Berlin); J. Ganz, W. Rolfes (Berlin), U. Müller, T. Rhode & Partner (Berlin) and finally, for the gardens, J. Halfmann and C. Zillich (Gartenund). See: Internationale Bauausstellung Berlin 1987. *Projektübersicht* (1991), 190-199.

each floor that face both courtyard and street (“Zweispänner”), but there are also alternatives, such as several duplexes.

In Ritterstraße, houses are accessible from the public streets, from the central square or from the inner streets that intersect in the square. Considering the typology of spaces it features, it can be thus said that the block in Ritterstraße is an ensemble of blocks with a central courtyard (the square).

This block features a great complexity of spaces and spatial hierarchies. The semi-private courtyards are interconnected with the other spaces of the block – that is, with the central square and, through portals, with the streets that intertwine in this square. This spatial complexity has been limited by the recent closure of many of the private courtyards following the privatization of the entire block. Although this change affects third-party accessibility to the (now no longer semi-) private courtyards, it does not affect their spatial perception as urban gardens bounded by architecture.

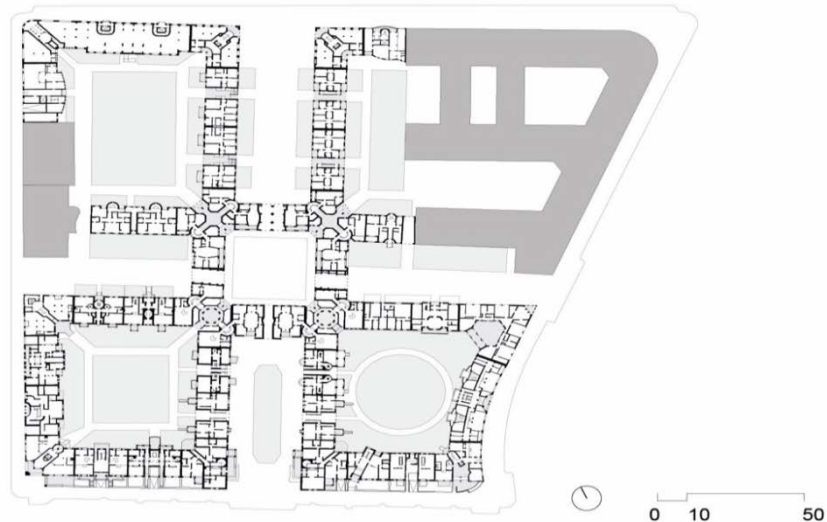


Figure 6. *IBA Block in Ritterstraße Nord. Photo of the Central Public Square and Ground-Floor Plan*

Sources Top: Photo by the author (2020). Bottom: Drawing made for the seminar “Learning from the IBA. The Block. Beiträge von Rob Krier” at RWTH Aachen University (2018/19) and further edited by the author (2021). Redrawn after: Kleihues (Ed.), *Internationale Bauausstellung 1984/87. Die Neubaugebiete. Dokumente. Projekte 7* (1993) and *Internationale Bauausstellung Berlin 1987. Project Report* (1991).

Block in Rauchstraße (1983–1984)

Like the block in Ritterstraße, the block in Rauchstraße – also a masterplan by Rob Krier – was “critically” reconstructed by considering the configuration of the block as it was before bombing in WWII. However, while the reference in the case of Ritterstraße was the compact fabric of the district *Kreuzberg*, with its small, interconnected courtyards, the block taken as a reference in the case of Rauchstraße, in the *Tiergarten* district, was markedly different. Its predecessor was a block resulting from a composition of detached villas.

Accordingly, the IBA block in Rauchstraße (Figure 7) results from the composition of eight new buildings – six of which are urban villas – that, with a former building that survived the bombings, define the space of a public garden. This garden is accessible to third parties and features a small playground. In this respect, it is possible to say that the block in Rauchstraße is an open block. It results from a composition of urban villas that are independent units, but that also clearly show similarities and strong links to each other.

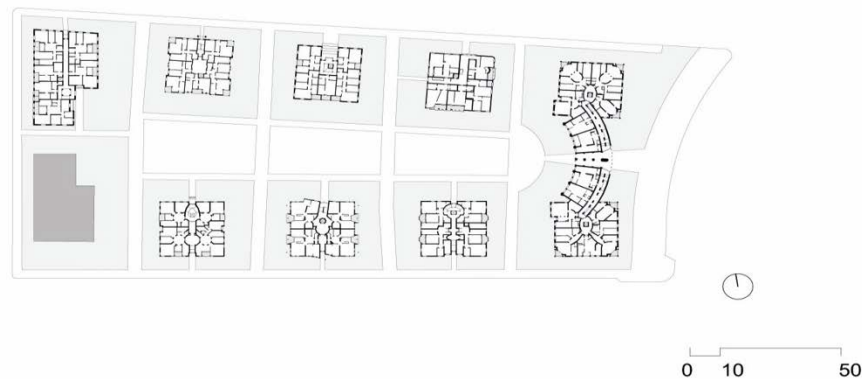


Figure 7. IBA Block in Rauchstraße. Photo of the Inner Garden and Ground-Floor Plan

Source: Top: Photo by the author (2018). Bottom: Drawing made for the seminar “Learning from the IBA. The Block. Beiträge von Rob Krier” at RWTH Aachen University (2018/19) and further edited by the author (2021). Redrawn after: J. P. Kleihues (eds.), *Internationale Bauausstellung 1984/87. Die Neubaugebiete. Dokumente. Projekte 7* (1993) and *Internationale Bauausstellung Berlin 1987. Project Report* (1991).

As in Ritterstraße, several architects worked according to the guidelines defined by a masterplan of Rob Krier. Despite the different personalities involved in this project,⁴¹ the unity of Krier's original idea is clearly visible.

If we exclude the eastern and western head buildings, this block is composed of regular urban villas, all of five storeys, with a square base of 21 meters and a boundary around it of 25 m, dedicated to private gardens for the residents living on the ground floor.

Each villa houses several apartments, with an average of five per floor and a central staircase onto which the entrances of the apartments face. The only exceptions to this scheme are the house designed by the Italian architects Aldo Rossi and Gianni Braghieri, in the west of the ensemble – an L-shaped building, bigger than the other villas – and the eastern gate building designed (as one of the villas) by Rob Krier himself.

The perimeter of the block is defined by public streets, onto which the entrances of the houses directly face. Thus, both the streets and the block are given back their spatial boundaries, albeit not continuous. Within these boundaries, the interior of the garden between the villas is perceived as an urban field, a small microcosm between the huge Tiergarten park to the north and the denser, bustling city to the south.

Block 2 in Friedrichsvorstadt (Concept: 1981, Built: 1990)

Close to Berlin's Potsdamer Platz there is an area known as *Friedrichsvorstadt*. Historically, this area used to be extremely lively, with two train stations and a small river port nearby. However, little of that liveliness and of its urban structure survived the bombings of WWII. In the 1980s, Friedrichsvorstadt still presented itself as a desolate "no-man's-land".⁴²

The masterplan for this area bears the mark of the German architects Oswald Mathias Ungers and Bernd Faskel, who designed a proposal for the reconstruction of *Friedrichsvorstadt* for the IBA.⁴³ Of the four blocks in their proposal, this paper focuses on the so-called Block 2, between Stresemann-, Dessauer- and Bernburger Straße. In this block, the corner building designed by the British-Iraqi architect Zaha Hadid is probably the most famous IBA building. But it is not the only IBA building in the block. Together with it, in fact, the projects of five other architectural firms⁴⁴ combine to define a set of three interconnected courtyards.

41. Together with Rob Krier, the architects who collaborated on this block are: Valentiny und Hermann (Remerschen/Luxemburg); H. Hollein (Wien); A. Rossi and G. Braghieri (Milan); Nielebrock & Partner (Berlin); G. Grassi (Milan); K. T. Brenner und B. Tonon (Berlin). The design of the garden was by architects C. Müller, J. Wehnerg, E. Knippschild (Berlin) See: Internationale Bauausstellung Berlin 1987. Projektübersicht (1991), 32-35.

42. Ungers and B. Faskel, *Studie Friedrichsvorstadt* (Berlin: 1981), 4.

43. Ibid.

44. Along with Hadid (London), the architects who collaborated on this block are: P. Blake (Washington, USA); C. Jackmann (Berlin); R. Loegler (Crakow, Poland) W. Obtulowicz and D. Karpinski (Crakow, Poland); M. Wahraftig (Berlin) and H. Kossel (Berlin) for the outdoor spaces. See: Internationale Bauausstellung Berlin 1987. Projektübersicht (1991), 106-107

small gates at the level of the ground floor. This spatial “enfilade” of courtyards is hardly noticeable from the outside since these uncovered spaces are raised above street level (Figure 8). Inside one of these peaceful “uncovered rooms” in Block 2, it is difficult to realize how close one is to Potsdamer Platz, one of the busiest areas in contemporary Berlin.

Reformed Urban Blocks/IBA Blocks: Analogies and Differences

After careful analysis of different IBA blocks, it emerges that the relation with the 19th-century block assumed as a reference by the IBA is mostly limited to morphological aspects, to its perimeter and to the height of its buildings, without reassuming many of its former typological or spatial features. Indeed, the IBA blocks lacked one fundamental prerequisite for recovering the complexity of the 19th-century block, namely the division of ownership in different plots. In an article published in the German architectural journal *Bauwelt* in 1997 and entitled *Der Berliner Block* (The Berlin Block), the architecture critic Dieter Hoffmann-Axthelm strongly criticized this aspect, observing how IBA blocks “misunderstood the block as an architectural figure instead of as a basic component of urban planning”.⁴⁵ This feature suggests a parallel, and as noted by Hoffmann-Axthelm “This misunderstanding by no means begins with Kleihues and the IBA, but far earlier, at the root of modernism”.⁴⁶ In fact, it was not the IBA that paved the way for the merging of small plots of land prior to the design of new blocks. As observed at the beginning of this paper, this process was already implemented in the first decades of the 20th century in reformed urban blocks.

It is interesting to note that in both reformed and IBA blocks, the *Mietskaserne* underwent similar morphological and spatial transformations, such as the emptying of the courtyards and the dissection of the block by an inner street. IBA blocks and reformed blocks share similar ways of defining the open spaces of the courtyards – green open spaces instead of the many small courtyards of the *Mietskaserne* – and an increased openness to the public space.

“If we now approach (...) the Kleihues’ block on Vinetaplatz, one thing is evident: we are back at Messel. This is as obvious in relation to the aesthetic program of the architectural block as it is in relation to the typology of perimeter block development with a garden interior.”⁴⁷

45. Hoffmann-Axthelm, “Der Berliner Block,” 1997, 922. Translated by the author. Original: “(...) Missverständnis, der Block sei eine Architekturfigur und kein Stadtplanungsbaustein”.

46. Ibid. Translated by the author. Original quote: “(...) dieses Missverständnis beginnt keineswegs erst mit Kleihues und der IBA, sondern weit früher, an den Wurzeln der Moderne”

47. Ibid., 924. Translated by the author. Original quote: “Geht man jetzt auf (...) den Kleihues-Block am Vinetaplatz, dann ist eines evident: Wir sind wieder bei Messel. Bezogen auf das ästhetische Programm des Architekturblocks ist das so offensichtlich wie bezogen auf die Typologie der Blockrandbebauung mit gärtnerisch angelegter Innenfläche.”

With these words Hoffmann-Axthelm further elaborates, in the same article, his critique of unitary blocks without plot division. He acknowledges that this condition can be found both in reformed urban blocks and in IBA blocks. When presenting his arguments, Hoffmann-Axthelm compares the Weisbachgruppe block, by Alfred Messel – one of the first reformed perimeter blocks in Berlin with an open courtyard used as community garden – with the example of Vinetaplatz by Kleihues already mentioned – the first block to resume this scheme after WWII and a pilot project for the IBA blocks that were designed some years later.

Both blocks were designed and built on a single plot of land. Apart from their morphological and spatial similarities, they also show aesthetic analogies despite having a different architectural language of facade. Indeed, both blocks declare their unity of design to the outside. Their facades on the public streets are uniform and do not simulate any subdivision into smaller units.

This aesthetic of “unity” is a characteristic that reformed urban blocks share with the Vinetaplatz block, but not with later IBA blocks. And here lies one of the fundamental differences between these two phases in the 20th-century development of the Berlin block.

As a matter of fact, in the IBA’s critical reconstruction architects aimed to simulate a division of the block into several houses although there was no actual land division.⁴⁸ This characteristic was pointed out, for example, for the block in Ritterstraße. Thus, despite sharing with Vinetaplatz and with the reformed urban blocks the same premises in terms of land division, the IBA blocks replace the “aesthetic of unity” with an “aesthetic of variety”.

Furthermore, in light of the fact that unlike the architects of Berlin’s reformed urban blocks many architects participating in the IBA were from outside Germany, the IBA blocks exhibit a particularly heterogeneous variety. The projects related with very different sensibilities to Berlin, its urban history, and its blocks.

Despite the different contingencies for which they were designed, reformed urban blocks and IBA blocks share similar spatial characteristics. Alongside the parallelism that Hoffmann-Axthelm made between Messel’s Weisbachgruppe and Kleihues’ Vinetaplatz – two perimeter blocks with empty courtyards – other spatial solutions also recur in both phases.

The six case studies illustrated so far in this paper highlight these recurrences very well. Figures 9,10,11 help to visualize these similarities. They are *Raummodelle*, which in German means “spatial models”. By representing as volumes the uncovered courtyards of each block, these models permit an understanding of what the spaces defined by the buildings look like, how they are linked to one another, and how they communicate with the outer public spaces.

If one considers the reformed urban block in Schöneberg and the IBA block in Ritterstraße Nord, for example, it can be noticed that both present a system of courtyards and intersecting streets, organized according to clear spatial hierarchies. Both models feature a central courtyard/square that is crossed by streets or passages, while the other courtyards are not accessible to third parties (in the case

48. After WWII, most of the land in Berlin was in public hands, either owned by the city or by the State of Berlin (West).

of Schöneberg) or are semi-private (Ritterstraße). The spatial models shown in Figure 9 clearly illustrate the spatial similarities between these two Berlin blocks, despite their dimensional and aesthetic differences.

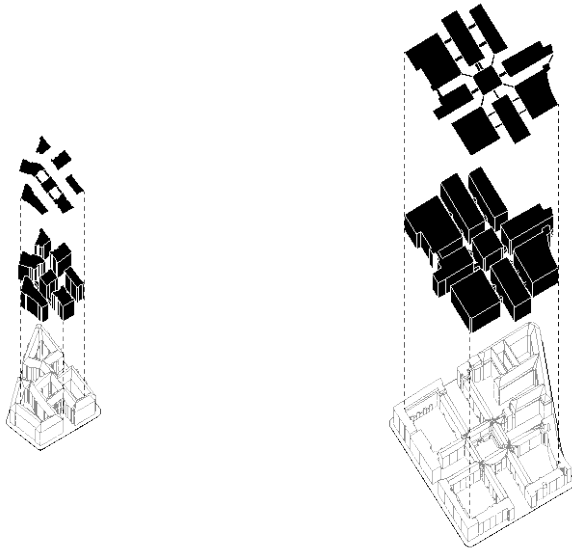


Figure 9. *Housing Block Near the Schöneberg Rathaus (1906–1907) and IBA Block in Ritterstraße Nord (1982–88): Spatial Hierarchies of Interconnected Courtyards and Streets*

Source: Drawing by the author, with B. Berbig (2021).

Another spatial solution that recurs at both moments in the 20th-century development of the Berlin block is represented by the passage, an enfilade of separate courtyards connected by a semi-public path. At the beginning of the century, the Ideal-Passage featured this solution. This was repeated about eighty years later, and adapted to a very different context, in the IBA block known as Block 2. Figure 10 shows this spatial analogy.

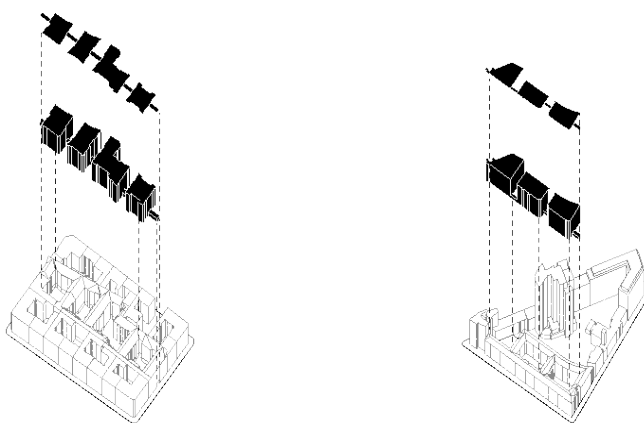


Figure 10. *Ideal-Passage (1907–1908) and IBA Block 2 (1987–1990): Enfilades of Courtyards*

Source: Drawing by the author, with B. Berbig (2021).

Finally, the theme of urban villas around a public garden is also repeated. Figure 11 shows that the spatial solution adopted by the IBA in Rauchstraße is very reminiscent of the one designed by Otto March for Amalienpark, which was planned and built some ninety years earlier.

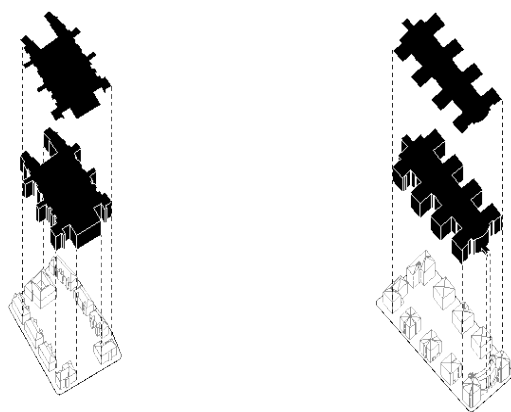


Figure 11. *Amalienpark (1896–1897) and IBA Block in Rauchstraße (1983–1984): Villas Around a Garden*

Source: Drawing by the author, with B. Berbig (2021).

In light of these similarities, we can observe that the IBA advanced the spatial development of the Berlin block from the phase before its modernist denial – that is, reformed urban blocks. However, if reformed blocks represented, after all, the earliest intermediate step towards the opening of traditional urban forms and then towards the modernist denial of the block, it can be argued that the IBA blocks worked in the opposite direction, to restore the Berlin block starting from the spatially-open city of the Modern.

Although they share several spatial features, there are also notable differences between reformed and IBA blocks. Reformed urban blocks were still embedded in a context of streets and squares, with which the spaces of their courtyards communicate. In contrast, in the 1980s the city outside the IBA blocks was no longer the historical city of interconnected spaces but rather a new one, where streets and squares were almost irremediably transformed by traffic plans. Effective communication between the spaces within the IBA blocks and those outside of them is therefore a quite complex issue. At times, this communication is missing entirely.

Further differences between reformed and IBA blocks concern their location and the reason for their construction: the former were mostly erected in peripheral areas of a growing Berlin at the beginning of the 20th century, while the latter were designed to reconstruct the historical city center of the divided (West) Berlin after WWII. Moreover, whereas reformed urban blocks were mostly the result of private initiatives (with public support), the blocks designed by the IBA, a society founded by and supporting the work of the West-Berlin Senate, were the result of public initiatives. It follows therefore that, while the large plots of land on which reformed urban blocks were built were privately-owned, in the case of the IBA

most of the land belonged either to the city or to the state of Berlin (West). It was public land that only later was given to an owner.⁴⁹

It is very important to consider the background to the conception of these projects. Today, the growing Berlin of the German Empire (1871–1918), the Berlin of the Weimar Republic (1918–1933) and the Berlin divided by the Wall (1961–1989) are a distant memory. In this changed context, the question arises as to whether there are still possibilities to use and transform urban blocks in the great metropolis that is Berlin today. Before bringing this paper to its conclusion, the next section answers this question by illustrating some recent proposals for modern Berlin blocks.

The Berlin Block in Contemporary Urban Proposals

In 2019, the competition of ideas called “Berlin-Brandenburg 2070” was initiated by the Architects and Engineers Association of Berlin-Brandenburg to gather proposals for a future development of Berlin together with the neighboring centers of the Brandenburg region.

The winning proposal, by the architects Bernd Albers and Silvia Malcovati (Figure 12), relies extensively on urban blocks, used both in the city center and in the suburbs to reconnect heterogeneous, non-communicating urban fabrics, as well as city and countryside.



Figure 12. *Competition of Ideas “Berlin-Brandenburg 2070” (2019–2020). Winner Proposal by the Architects Bernd Albers and Silvia Malcovati, Detail of the Proposal for Tempelhofer Feld*

Source: Image courtesy of the architects Bernd Albers and Silvia Malcovati.

49. The choice of the owner of the IBA blocks usually took place after the competitions, when the projects were already partly defined. The so-called *Bauherrenwettbewerbe* (competitions for the clients) were introduced for this purpose. See: R. Emenlauer, “Wie man den richtigen Bauherrn findet,” in *Das Neue Berlin. Für einen Städtebau mit Zukunft* (Berlin: Gebr. Mann, 1987), 128-131.

Yet it is another of the finalists' proposals that is particularly interesting for this paper. It is the project entitled *Stella* by the architect Uwe Schröder (Figure 13). Here, among the three “metropolitan typologies”⁵⁰ proposed for three different locations selected in the city of Berlin, one focuses on the theme of the block and experiments with it.

This proposal does not so much look back to the 19th- nor to the 20th-century Berlin block. Because of their enormous size and the large spaces fields they encompass, *Stella's* blocks, with their exaggerated dimensions, are rather reminiscent of the southern blocks of Friedrichstadt defined by Gerlach's baroque plan of the 18th century. These baroque blocks were over six hundred meters in length and embraced huge inner courtyards that were used mostly for agricultural production. At two or three-storeys, however, they were far shorter than the blocks in *Stella* – up to 80 meters high.⁵¹



Figure 13. *Competition of Ideas “Berlin-Brandenburg 2070” (2019–2020). Proposal by the Architect Uwe Schröder, Detail of the Blocks Proposed for Berlin-Wartenberg*

Source: Image courtesy of Uwe Schröder Architekt.

For the suburbs of today's Berlin, where a dialogue between architectural spaces, landscapes, and urban fields is missing, Schröder's proposal envisions blocks that embrace the landscape, giving it architectural boundaries. Parks, cemeteries, or community gardens are included in the block.⁵² Thus, the interior of the block becomes a public urban field.

50. U. Schröder, *Stella. Sternbild Berlin Brandenburg 2070* (Cologne: Verlag der Buchhaltung Walter und Franz König, 2021), 27.

51. *Ibid.*, 41.

52. *Ibid.*

The blocks proposed for *Stella* are closely related to each other, connected by streets whose proportions depend on the buildings that delimit them, so that these streets are always perceived as architectural spaces. Thus, in contrast to the IBA, which sought to reconstruct the block but in doing so at times “forgot” the street, Schröder revolutionizes the spatiality of the block to adapt it to the scale of the metropolis but conceives this revolution within a proposal for urban design in which streets and squares still play a fundamental role.

Schröder’s proposal re-thinks the spaces of the city and of the countryside and prompts dialogue. Consequently – and here lies one of the fundamental premises of this design proposal – city and landscape are given those necessary clear reciprocal boundaries that are often missing in the peripheries of our metropolis.

A utopia? Probably. Nevertheless, what both selected proposals for Berlin-Brandenburg 2070 show is that it is still possible to experiment with streets, squares and courtyards to solve the problems of the spatiality of the city – also in the controversial suburbs.

Stella does not copy any block from the past. In the same way that reformed urban blocks transformed the 19th-century block to adapt it to the changed conditions of an early 20th-century Berlin, *Stella* envisions blocks for the Berlin of the 21st century that, in the words of its architect, “embody the new scale of the metropolis.”⁵³

Conclusions

In the 1970s, before being appointed director of the IBA Neubau, Josef Paul Kleihues wrote with deep interest about the spatial solutions adopted in reformed urban blocks at the turn of the century. This is evidenced by several of his texts, in particular by his paper “Housing Blocks” published in *Lotus International* in 1978 and its numerous translations.⁵⁴ However, as pointed out at the beginning of this paper, both during and after the building exhibition of the 1980s there was barely direct reference between the reform blocks and the IBA blocks. And yet, as demonstrated by the comparative drawings within this paper, there is no lack of spatial and formal similarities.

Awareness of these affinities represented the starting point for the research presented in this paper, which aims to reconstruct – or at least to speculate on – connections between projects of Berlin blocks realized more than half a century apart. Primary sources for this research are the buildings themselves, which have been studied through photos and re-drawings, highlighting their spatial conceptions. Thereby, some considerations on the reasons, but especially on the value of the spatial solutions offered by these projects can be made to sum up the main points raised in this paper.

It was noted that reformed urban blocks considerably improved the quality of life within urban blocks for the working class by the early 20th century. These

53. Ibid.

54. See footnote no. 10 in this paper.

blocks can be seen as an early farewell to overbuilt rental blocks towards an increased openness of the urban spaces. Through wide empty courtyards, interior streets, and courtyards open to the street, the boundaries between private and public spaces become increasingly blurred. While initiating a spatial revolution, however, the reformed blocks were built in a context still strongly embedded in a traditional spatial conception. In those same years, slowly but steadily, the open form of the modern avant-garde was gaining momentum.

On the contrary, for IBA 1987 the starting point was the dominant spatial conception of the Modern Movement, of an absolute space. Rather than aiming for an opening up of urban spaces, the IBA sought to return to a city of spatially-bound, interconnected spaces, stitching together the pieces of a fragmented city – or at least attempting to render those urban fragments meaningful again by reintegrating them into a spatial continuity. In doing so, the IBA sought to free itself from modernist spatial conceptions and aimed instead to return to a city made up of streets, squares and courtyards.

Nevertheless, the IBA projects often reveal a “spatial confusion”, where traditional urban spaces – courtyards, streets, squares – are present together with solitary buildings, that is, with the “objects” of the modern city – to paraphrase Colin Rowe.⁵⁵ In retrospect, the outcomes of the IBA can be read as the outcomes of the search for a compromise between the spatially-open city and the spatially-bound city. In the IBA blocks, these paradigms meet (and clash).

The present paper introduced first reform blocks and then IBA blocks, in chronological order. Besides presenting the projects, it delved into their historical and theoretical context, to allow for their contextualization. Compared to most of the existing literature on IBA and on reformed urban blocks, the major novelty of this paper lies in the fact that it presents these two moments together, allowing their cross-referencing and thus highlighting their affinities. By visualizing that the spatialities of some IBA blocks are very reminiscent of those of former reformed urban blocks, it also demonstrates that there are indeed spatial solutions whose advantages are timeless.

Furthermore, this paper’s reference to recent design initiatives such as the Berlin-Brandenburg 2070 competition aims to demonstrate that – just as in the early 20th century with the reform blocks and in the 1980s with the IBA blocks – it is still possible to experiment with the typology of the urban block, adapting it to the needs of contemporary cities and metropolises. Today, almost forty years after the IBA, modernist spatial conceptions still dominate, with the major difference that the paradigm of the “car-friendly” city has been replaced by others, like that of sustainability.

In this regard, it has often been stressed that the compact and spatially-bound city offers advantages in terms of mobility in view of more sustainable cities. However, in most of the current debates on sustainability, spatial issues in urban design are somewhat disregarded. And yet these issues also deserve a mention: If

55. C. Rowe and F. Koetter, *Collage City* (1978), 62.

sustainability means acting with a view to future generations,⁵⁶ it is consistent to claim that preserving (and developing further) the elements that have long determined the identity of our cities will be a duty for those generations. Urban blocks, with their courtyards, are one of these fundamental elements of the city of spaces that posterity deserves to know.

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Bibliography

- Akcan, E. *Open Architecture. Migration, Citizenship, and the Urban Renewal of Berlin-Kreuzberg by IBA-1984 / 87*. Basel: Birkäuser, 2018.
- Architekten- und Ingenieur Verein Berlin (Ed.) *Berlin und seine Bauten*. [Berlin and its Buildings.] *Part IV Wohnungsbau*. [Residential Architecture.] *Volume A: Die Voraussetzungen. Die Entwicklung der Wohngebiete*. [The Premises. The Development of Residential Districts] and *Volume B: Die Wohngebäude. Mehrfamilienhäuser*. [Residential Buildings. Apartment Buildings.] Berlin: Wilhelm Ernst & Sohn, 1970 and 1974.
- Benevolo, L. *Storia dell'architettura moderna*. [History of Modern Architecture.] Bari/Roma: Laterza, 1960 (consulted: 30th Edition 2010).
- Borsi, K., N. Porter and M. Nottingham. "The Typology of the Berlin Block: History, Continuity and Spatial Performance." *Athens Journal of Architecture* 2, no. 1 (2016): 45-64.
- Caja, M., M. Landsberger and S. Malcovati. *Tipologia architettonica e morfologia urbana. Il dibattito italiano - antologia 1960-1980*. [Architectural Typology and

56. I refer here to the first explicit formulation of the concept "sustainability", namely that given by the Brundtland Report in 1987.

- Urban Morphology. The Italian Debate – Anthology 1960-1980.] Milan: il Libraccio, 2014.
- _____. *Tipo, Forma, Figura. Il dibattito internazionale 1970-2000.* [Type, Form, Figure. The international Debate 1970-2000.] Milan: il Libraccio, 2016.
- Curtis, W. J. R. *Modern Architecture since 1900.* Berlin: Phaidon, 1982 (consulted: 3rd Edition: 2002).
- Denk, A., U. Schröder and R. Schützeichel. *Architektur Raum Theorie. Eine kommentierte Anthologie.* [Architecture Space Theory. A Commented Anthology.] Berlin/Tübingen: Wasmuth, 2016.
- Deutsches Institut für Urbanistik (Ed.) *Veröffentlichungen der Internationalen Bauausstellung Berlin 1987. Dokumentation von Forschungsberichten, Gutachten, Wettbewerbs- und Planungsunterlagen.* [Publications of the International Building Exhibition Berlin 1987. Documentation of Research Reports, Experts' Reports, Competition and Planning Documents.] Berlin: 1987.
- Emenlauer, R. "Wie man den richtigen Bauherrn findet" [How to Find the Proper Client.] In *Das Neue Berlin. Für einen Städtebau mit Zukunft*, edited by D. Guratzsch, 128-131. Berlin: Gebr. Mann Verlag, 1987.
- Engel H., P. -A. Albrecht, G. Wolf and C. Wolf. *Der Amalienpark in Pankow und sein Architekt Otto March. Schriftenreihe Meisterwerke Berliner Baukunst, Band 7* [The Amalienpark in Pankow and its Architect Otto March. Series of Publications Masterpieces of Berlin Architecture, Volume 7.] Berlin: BWV Berliner Wissenschaftsverlag, 2007.
- Frampton, K. *Modern Architecture: A Critical History.* 4th Edition Revised. London: Thames and Hudson, 2007.
- Friebel, K. (Ed.) *Experiment Wohnen - Konzepte Ritterstraße. Vier Architektengruppen entwerfen einen Blockrand in der Südlichen Friedrichstadt.* [Experiment Living – Konzepte Ritterstraße. Four Groups of Architects Design a Perimeter Block in Southern Friedrichstadt.] Berlin: Archibook, 1981.
- Gessner, A. *Das Berliner Mietshaus.* [The Berlin Rental House.] Munich: Bruckmann, 1909.
- Giedion, S. *Space, Time and Architecture. The Growth of a New Tradition.* Cambridge: Harvard University Press, 1941 (consulted: 3rd Edition: 1954).
- Hegemann, W. *Das Steinerne Berlin 1930. Geschichte der Größten Mietskasernenstadt der Welt.* [The Berlin of Stone 1930. History of the biggest city of rental barracks of the World.] Basel/Berlin/Boston: Birkhäuser (consulted Edition: 1963).
- Hoffmann-Axthelm, D. "Der Berliner Baublock." [The Berlin Block.] *Bauwelt*, no.17/18 (1997): 922-925.
- Howard, E. *To-morrow: A Peaceful Path to Real Reform.* Sonnenschein: London, 1898.
- Internationale Bauausstellung Berlin (Ed.) *Internationale Bauausstellung Berlin 1987. Projektübersicht* [Project Report.] Berlin, 1991.
- Kleihues, J. P. "Edilizia chiusa ed edilizia aperta. Note sul caso di Berlino e osservazioni sull'isolato 270 a Wedding/Housing Blocks. Notes on the Case of Berlin and Comments on the Block 270 in Wedding." *Lotus International*, no. 19 (1978): 62-75.
- _____. "Berliner Baublöcke. Grundriss einer Typologie." [Berlin Blocks. Floor Plan of a Typology.] *Werk: Archthese*, no. 31-32 (1979): 18-27.
- Kleihues, J. P. (Ed.) *Internationale Bauausstellung 1984/87. Die Neubaugebiete. Dokumente. Projekte 7.* [The New-Building Areas. Documents. Projects.] Stuttgart: Hatje Cantz, 1993.
- Krier, R. *Stadtraum in Theorie und Praxis. An Beispiele der Innenstadt Stuttgarts* [Urban Space in Theory and Practice. Examples from the City of Stuttgart.] Stuttgart: Karl Kramer Verlag, 1975.

- Kromrei, C. *Postmodern Berlin. Wohnbauten der 80er Jahre/Residential Buildings of the 80s*. Salenstein: Niggli, 2018.
- Lotus International, no. 19: *L'isolato urbano*. [The Urban Block.] Milan: Electa, 1978.
- Magnago Lampugnani, V. *Die Stadt im 20. Jahrhundert. Visionen, Entwürfe, Gebautes*. [The City in the 20th Century. Visions, Projects, Buildings.] Berlin: Verlag Klaus Wagenbach, 2010.
- Malcovati, S. "Das alte Frankfurt: Urban Neighborhood versus Housing Estate, the Rebirth of Urban Architecture." *Urban Planning*, no. 4 (2019): 117-133.
- May, E. "Fünf Jahre Wohnungsbautätigkeit in Frankfurt am Main." [Five Years of Residential Construction Activity in Frankfurt am Main.] Foreword to: *Das neue Frankfurt*, no. 2/3 (1930): 34.
- Müller, U. and Berlinische Galerie (Ed.) *Anything Goes? Berlin Architectures in the 1980s*. Catalogue of the Exhibition Held in Berlin's Berlinische Galerie (February 2021 - August 2021). Berlin: Kerber, 2021.
- Panerai, P., J. Castex, J. C. Depaule and I. Samuels. *Urban Forms, The Death and Life of the Urban Block*. Oxford: Architectural Press, 2004. (1st French Edition: *De l'ilot a la barre*, 1977).
- Posener, J. *Berlin auf dem Wege zu einer neuen Architektur*. [Berlin on the Way Towards a New Architecture.] Munich: Prestel Verlag. (1st Edition 1979): 319-361.
- Rowe, C. and F. Koetter. *Collage City*. Cambridge Mass.: The MIT Press, 1978.
- Salgo, A. *Neue Blöcke für die Innenstadt. Die IBA '87 und der Wiederaufbau der südlichen Friedrichstadt*. [New Blocks for the Inner City. The IBA '87 and the Reconstruction of Southern Friedrichstadt.] Doctoral Thesis TU Berlin. Berlin: Gebr. Mann Verlag, 2021.
- Schmeink, K. *Der Poröse Baublock. Raumbildendes Element im Berliner Städtebau um 1900*. [The Porous Block. Space-Forming Element in Berlin Urban Design Around 1900.] Doctoral Thesis ETH Zurich no. 16113. Zurich, 2005.
- Schonlau, M. "Die Berliner Wohnungsbauförderung." [The Berlin Housing Subsidy.] *Baumeister*, no. 5 (1987): 20-23.
- Schröder, U. *Stella. Sternbild Berlin Brandenburg 2070*. [Stella. Constellation Berlin Brandenburg 2070.] Cologne: Verlag der Buchhaltung Walter und Franz König, 2021.
- Sonne, W. "Dwelling in the Metropolis: Reformed Urban Blocks 1890–1940 as a Model for the Sustainable Compact City." *Progress in Planning*, no. 72 (2009): 53-150.
- _____. *Urbanity and Density in 20th Century Urban Design*. DOM Publisher: Berlin, 2017.
- Ungers, O. M. and B. Faskel. *Studie Friedrichsvorstadt*. Berlin, 1981.
- Ungers O. M., W. H. Goehner, A. Ovaska and H. F. Kollhoff. *The Urban Block and Gotham City. Metaphors and Metamorphosis*. Cologne: Studio Press for Architecture L. Ungers, 1976.
- Werner F., F. Popp, K. Schalhorn and H. Schmalscheidt. *Der Baublock. Straße Wohnung Hof*. [The Block. Street, Apartment, and Courtyard.] Munich: Callwey, 1977.
- Wohnungsbau der Architekten für die Beamten-Wohnungs-Verein zu Berlin eG (Ed.) *Paul Mebes und Paul Emmerich: Meister der gemäßigten Moderne*. [Paul Mebes and Paul Emmerich: Masters of Moderate Modernism.] Berlin, 2015.