

Beyond Façades: The Berlin Block and the Housing Issue at IBA 1987

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Introduction: IBA 1987, Housing, and the Berlin Block

The 20th century was marked by a series of diverse architectural and building exhibitions, in Germany and elsewhere. The role of these exhibitions was essential in experimenting with new housing models and sharing their concepts with the public. This is especially true in the case of the Modern Movement's ideas of architecture and the city, both showcased and disseminated through the crucial opportunity provided by architectural and building exhibitions. Among these modernist exhibitions, some of the most prestigious on an international level were the *Weißenhofsiedlung* in 1927 in Stuttgart, the exhibition "Modern Architecture" held at the MoMa in New York in 1932, Milan 5th Triennale in 1933 and Berlin's *Internationale Bauausstellung* [International Building Exhibition] *Interbau* in 1957 – to mention only a few.

Housing was a central topic in the revolutionary proposals of the Modern Movement. However, not all these exhibitions addressed architecture, housing, and its relationship to the city in the same way. First, a distinction should be made between events held either before or after World War II. The former promoted the avant-gardes' aim at reforming housing in order to improve society, welcoming with enthusiasm the technological and constructive innovations made available at the beginning of the 20th century. The avant-garde movements of the early 20th century called for a new architecture, new architectural languages, and new ideas of living that ranged from the scale of the apartment to that of the whole city.¹ These novelties in architecture were met with great enthusiasm by the public.

After World War II, especially in Europe, little of that enthusiasm had survived. In many cities – like Berlin, on which this paper focuses – the most pressing need was for urban reconstruction. In the first decades of this reconstruction – between the 1950s and the 1960s – the architectural and urban models of the Modern Movement were welcomed and applied on a large scale. Some of these applications, such as those offered by the building exhibition *Interbau* in Berlin in 1957, were particularly successful. This exhibition represents a model of modernist city where housing is clearly separated from public functions and buildings are distributed in a widespread, green, public space, without the streets or squares that characterized historical districts.

If the *Interbau* was a success for its time, several planning initiatives following the exhibition were rather disappointing, in particular the big housing estates built in the 1960s on the

¹ Not only for the individual apartment but also for the whole city, as well as for all the intermediate scales between these two, the proposals of the modern avant-garde were very varied, so that it is difficult to summarize them. For an overview of the variety and complexity of modernist proposals for architecture and the city please refer to the following texts: Kenneth Frampton, *Modern Architecture: a critical history. Fourth Edition Revised* (London: Thames and Hudson, 1980, 4th edition 2007), Leonardo Benevolo, *Storia dell'architettura moderna*. (Bari/Roma: Laterza, 1960, 30th edition 2010), William J. R. Curtis, *Modern Architecture since 1900* (Berlin: Phaidon, 1982, 3rd ed. 2002), Sigfried Giedion, *Space, Time and Architecture. The growth of a new tradition* (Cambridge (Mass.): Harvard University Press. 1941, 3rd edition 1954).

outskirts of the city – in Berlin as well as in other cities inside and outside Europe. These housing estates were among the main reasons that motivated many architects, from the 1960s onwards, to call for change and distance themselves from modernist architectural and urban models that were dominant in previous decades.

In the architectural debate that arose from the late 1960s onwards against modernist principles and models, housing continued to play a key role. The protagonists of this debate² criticized the post-World War II dominant planning tendencies both in urban expansions and reconstructions. Instead of solitary towers, of uniformly oriented rows of houses or of huge peripheral housing estates, these architects claimed a return to an architecture on a human scale, made up of blocks, streets, and squares. Instead of the functional zoning, which especially after the Athens Charter of 1933 seemed to have become a prevailing rule for urban interventions, they claimed the return to the historical mix of urban functions. According to them, housing ought to be rethought not only in the peripheries, but also in the city center, within the consolidated urban structure of previous centuries. Based on these convictions, another *Internationale Bauausstellung Berlin* (IBA) was organized in West Berlin in the 1980s.³ The IBA was inaugurated in 1987 – thirty years after *Interbau* and sixty years after Stuttgart's *Weissenhofsiedlung*.

Like *Interbau* 1957, IBA 1987 was organized on the initiative of the West Berlin Senate and gave great importance to housing – especially to social housing. Unlike the *Interbau*, however, the IBA aimed at restoring and modernizing damaged historical buildings and at reconstructing the destroyed ones, as well as (contrary to modernist zoning) re-integrating housing with other urban functions in the city center. Considering this, if its attention to housing allows to contextualize the IBA in continuity with previous building exhibitions of the 20th century, it was especially its approach to housing and to the city that distinguished it from previous ones. For example, unlike the *Interbau*, the IBA did not promote any dwelling or city “of the future.” It focused instead on the city “of the present,” and it did so by considering the city of the past. Thereby, acknowledging the spatial and formal qualities of Berlin's historical urban fabric as it was up to the beginning of the 20th century, the IBA took that fabric – severely damaged by the war and by the following planning initiatives – as reference for the city's reconstruction. It called this approach “critical” for basing upon critical analysis and historical knowledge prior to design. By doing so, the IBA relied on blocks, streets, and squares as urban design elements. While in the large, peripheral housing estates of the 1960s, such as Berlin's *Gropiusstadt*, housing seemed to have become a matter of quantity rather than quality, the IBA organizers aimed at making housing appealing again, to its dwellers as well as to the entire city. Furthermore, they aimed at bringing housing back in the city center.

IBA 1987 was expected to tackle several issues at once: urban reconstruction, modernization of former rental barracks, redevelopment of the city center divided by the Wall, provision of social housing and public infrastructure. This was no small challenge, for which the IBA received both acclaim and harsh criticism. According to American art historian Emily Pugh, for example, the IBA was a success for the international visibility of Berlin, but it was also a failure from the point of view of housing.⁴ Pugh mainly blames this on the uniqueness of the political and financial system behind the IBA, that made it hard to reproduce its outcomes elsewhere, as well as on the excessive pluralism of theories and protagonists involved.⁵ Some weaknesses of the housing proposals by the IBA were already pinpointed by Colin Rowe in 1984, who attributed

2 On the protagonists and contents of the 1960s and 1970s debate, both inside and outside Italy (from where it started) see: Michele Caja, Martina Landsberger and Silvia Malcovati, *Tipologia architettonica e morfologia urbana* (Milan: il Libraccio, 2014) and Michele Caja, Martina Landsberger and Silvia Malcovati, *Tipologia, Forma, Figura. Il dibattito internazionale 1970-2000* (Milan: il Libraccio, 2016).

3 *Internationale Bauausstellung* means, in German, International Building Exhibition. In this text, I will refer to it with the shortened form “IBA.” If not explicitly expressed otherwise, I will use the shortened form “IBA” to refer to IBA 1987 and “Interbau” to IBA 1957.

4 Emily Pugh, “Beyond the Berlin Myth: The Local, the Global and the IBA 87,” in *Berlin Divided City 1945-1989*, ed. Philip Broadbent et.al. (New York: Bergahan Books, 2010): 163.

5 *Ibid.*

them to the excessive weight that the IBA gave to social housing. “As far as I can see” wrote Rowe in this regard “no city can be made out of Sozialewohnungsbaun alone.”⁶

This article gives insights on the housing issue proposed by IBA Berlin 1987. First, it briefly situates it in the context of Berlin’s building exhibitions of the 20th century, concentrating on the comparison with Interbau 1957. Second, it explores the major theoretical contributions that influenced IBA’s return to the urban block and to other traditional housing typologies, like the urban villa, as solutions for housing in the city center. Then, it illustrates some selected case studies of IBA blocks that are exemplary of particularly interesting combinations of housing concepts within the perimeters of former Berlin blocks.

Often most judgments of IBA 1987 have focused on aesthetics, on the facades of its most iconic buildings, such as the Kreuzberg Tower by the John Hejduk, the houses by Rob Krier or the corner building on Lützowplatz by Mario Botta. As this article will argue, this limited knowledge is not only due to the high individualism of the IBA’s architecture, but also partly due to the way in which the exhibition itself disseminated knowledge of its buildings. But one cannot base a judgment on an architectural initiative as complex as IBA 1987 merely on facades that are mostly “interesting only for the observer, and not for the occupant.”⁷ These facades, as extravagant and interesting as they may appear to the occasional passenger, conceal a higher complexity that deserves being explored. Building upon these remarks, this article will bring the reader “beyond” some of the IBA’s iconic facades, revealing the complexity of the housing solutions resulting from the experiments conducted for the exhibition within the borders of historical Berlin blocks. These experiments left behind what can be considered today a lesson of composition on the urban block, one that is still inspiring for contemporary urban housing.

IBA 1987 in the Background of Berlin’s Building Exhibitions

The *raison d’être* of international exhibitions, since the earliest World’s fairs of London and Paris in mid-19th century, has been to showcase the latest achievements of civilization. This applies to architectural and buildings exhibitions, which on several occasions along the 20th century drew public attention to housing and urban innovations. Many of these building exhibitions were organized in Germany. Prior to IBA 1987, Berlin hosted three such events throughout the 20th century.⁸ The first took place in 1910 and showcased the results of the “Great Berlin” competition. Twenty years later, and four years after the *Weissenhofsiedlung*, in 1931, the exhibition *Deutsche Bauausstellung* [German building exhibition] opened its doors in Berlin. In this exhibition, the section *Die Wohnung unserer Zeit* [“The dwelling of our time”], curated by Mies van der Rohe,⁹ showed 1:1 dwelling models conceived according to modern standards. As the title of this exhibition suggests, it well embodied Mies’ ambition to build an architecture “of his time.”¹⁰

6 Colin Rowe, “IBA. Rowe reflects,” *The Architectural review* 1051 (1984): 93. This quotation was taken with no corrections: the word “Sozialewohnungsbaun” was used instead of the correct one “Sozialer Wohnungsbau,” which in German means social housing.

7 Paulhans Peters, “The Ground Plans Behind the Facades,” *Baumeister* 5 (1987): 62.

8 For the sake of synthesis, this article briefly examines only a few selected events in the history of the *Bauausstellungen* in Germany. For a complete discussion of IBA 1987 in the context of previous Building and Architecture Exhibitions see: Johannes, Cramer and Gutschow Niels, *Bauausstellungen. Eine Architekturgeschichte des 20. Jahrhunderts* (Stuttgart: Kohlhammer, 1984). On the specific case of Berlin and its Exhibition, in English language, see also: Vittorio Magnago Lampugnani, “The Berlin Tradition of Architectural Exhibitions,” *AD*, special Issue “Architecture in Progress. Internationale Bauausstellung Berlin 1984” (1983), 10-14.

9 For a more detailed description of Berlin’s 1931 exhibition see: Dick van Gameren “Die Wohnung unserer Zeit Berlin,” *DASH – Delft Architectural Studies on Housing nr. 9 Housing Exhibition* (2013): 93, and Wallis Jo Miller *Tangible Ideas: Architecture and the Public at the 1931 German Building Exhibition in Berlin* (PhD diss., Princeton University, 1999).

10 Antonio Monestiroli, *La Metopa e il Triglifo* (Bari/Roma: Laterza, (2002, consulted 4th edition 2008), 41. Translated by the author. Original: “...(costruire) l’architettura del suo tempo.”



Fig. 1: Top: final model of the Interbau 1957 in Hansaviertel, view from the south. Bottom: Figure-ground plans of Berlin's Hansaviertel before World War II (left) and after Interbau 1957 (right).

Die Wohnung unserer Zeit was not the first exhibition Mies curated, as he had already directed the master plan for Stuttgart's *Weissenhofsiedlung* in 1927. However, there were significant differences in the spirit of the two exhibitions. As noted by the Dutch architect and professor Dick van Gameren, while Stuttgart's exhibition "was a radical manifesto, this exhibition [Berlin's 1931] seemed more a confirmation of the (now further developed) idiom of the modern home."¹¹

In contrast to the previous exhibitions, Interbau 1957 was held after World War II and therefore necessarily faced the issue of urban reconstruction and showcased possible solutions to housing shortage. Conceived to provide an example of "city of tomorrow" – one that would replace the city of the past – the Interbau erased the few remaining buildings of the Hansaviertel district that survived the bombings of the war and completely transformed the area. (Fig. 1) As such, the Interbau well represents the dominant architectural and urban practice of the 1950s, namely demolition of the former urban fabric and its substitution with free-standing buildings in a green, public space. Considering this, the result of the Interbau materializes the idea of the modernist "city of architectural objects" that, as lamented by the British architect Colin Rowe in his book *Collage City*, replaced the historical city "of spaces."¹²

11 Dick van Gameren "Die Wohnung unserer Zeit Berlin," *DASH – Delft Architectural Studies on Housing*, nr. 9 "Housing Exhibition" (2013): 93.

12 Colin Rowe and Fred Koetter, *Collage City* (Cambridge, Mass: The MIT Press, 1978), 62.

Notwithstanding this questionable planning solution, the Interbau was a success for the public, who appreciated above all its modern, bright, and well oriented apartments. The Interbau provided, after all, good examples of housing. Moreover, another aspect that made its buildings particularly appealing was the fact that they were built in the northern part of the Tiergarten park, in a very central location in Berlin. The main shortcoming of the Interbau lied rather in the public space outside these buildings, where neither streets nor squares offered the community living in Hansaviertel places to meet.

From the late 1960s the enthusiasm for the Modern Movement's ideas concerning the city began to fade. The optimism towards the city "of tomorrow" was gradually replaced by the disenchantments of its implementations and the awareness that the city "of yesterday" – that is, the historical city – could not be completely forgotten, but rather had to be analyzed, rediscovered, and reintegrated into new urban design proposals.

When, at the end of the 1970s, the Senate of West Berlin decided to resort again to the instrument of an *Internationale Bauausstellung* to rebuild the city center – still strongly marked by the bombing of World War II as well as by the previous reconstructions – it intended to make the center lively again and to do so by recovering and rebuilding on the basis of the historical fabric. "The city must be rediscovered and redeveloped as a place to live"¹³ reported the 1978 Bill of West Berlin Senate, clarifying the meaning of the exhibition's motto *Die Innenstadt als Wohnort* ["The inner city as a residential area"].¹⁴ For Berlin's city center, instead of modernist housing estates, IBA 1987 promoted urban neighborhoods and the idea of living in the Berlin block.

Just as for the Interbau, urban reconstruction and housing shortage were crucial for the IBA. However, the way in which the IBA addressed both issues, with its sensitive approach towards the historical city and its housing typologies, was very different from Interbau 1957. While "Weißenhof and Interbau could have been built anywhere,"¹⁵ the IBA was specific for its city and its districts. Furthermore, the visibility and public reception of these two building exhibitions differed. First, Interbau's housing projects concentrated mostly in the Hansaviertel district¹⁶ and were therefore relatively easy to grasp and understand as the outcomes of one planning initiative. On the contrary, the IBA's extension in different areas of the city, the diversity of its formal, typological, and spatial solutions, as well as the extent of its intervention, makes it difficult to fully grasp the complexity of the whole exhibition. Also, while in 1957 several Interbau apartments were open to visitors,¹⁷ in IBA 1987 "only few model apartments could be visited; the presentation was mainly limited to drawn plans and models and to the observation of the projects 'from the outside'."¹⁸ Then, after the completion of the exhibition in 1987, much of the IBA housing was rented to new tenants, without any model apartment remaining open to the public.¹⁹ Thereby, much of the IBA's architectural complexity remained hidden to the public eye. Here lies

13 See: Berlin Senator für Bau- und Wohnungswesen, *Internationale Bauausstellung 1984. Vorlage* (Berlin, 1978), 10. Translated by the author. Original: "Die Stadt muss als Wohnort wiederentdeckt und neu entwickelt werden."

14 *Ibid.*, 7. Very often in the IBA's literature this motto is translated as "Inner city as a place 'to live'." The translation "as residential area" – more coherent with the IBA's main focus on housing – is taken from the official English translation of the 1978 Bill of West Berlin Senate.

15 Peter Davey and Douglas Clelland, "Berlin. Origins to IBA," *Architectural Review* 1082 (1987): 23.

16 Only two buildings were built outside of Hansaviertel: The *Haus der Kulturen der Welt* (House of World's Cultures) and Le Corbusier's *Unite d'Habitation*.

17 See: Sandra Wagner-Conzelmann in: <https://hansaviertel.berlin/en/>.

18 Harald Bodenschatz and Cordelia Porinna, *Learning from IBA. Die IBA 1987 in Berlin*, (Berlin: 2010), 54. Translated by the author. Original: "Bei der IBA 1987 konnten nur wenige Musterwohnungen besichtigt werden; die Präsentation beschränkte sich überwiegend auf gezeichnete Pläne, Modelle und auf die Betrachtung der Projekte, von außen."

19 Moreover, the fact that the IBA's inauguration was postponed to 1987 and coincided with Berlin's 750th anniversary caused the IBA's loss of its expected protagonism among the numerous public events of that year. See: Bodenschatz et al. (2010), 54.



Fig. 2: Figure-ground plan of IBA Neubau's districts southern Tiergarten (on the left in the plan) and southern Friedrichstadt (on the right in the plan). In the background, the city footprint prior to the bombings of World War II is represented in grey, while the one after the IBA's reconstruction (1989) is represented in black in the foreground. The four IBA blocks chosen as case studies for this article are represented in red.

the main reason why knowledge of the IBA projects and of its housing solutions was (and still is) limited mainly to the exterior of the buildings.

IBA 1987 and the Question of Housing for the City Center

Housing was particularly important for the two departments of IBA 1987 — IBA Altbau [Old Buildings], and IBA Neubau [New Buildings]. Under the direction of Hardt-Waltherr Hämer, the Altbau focused on the recovery of existing housing blocks in the 19th-century district of Kreuzberg, intervening in a punctual way that was barely visible from the outside of the houses, modernizing apartments and adapting them to the needs of their dwellers. For its part, the Neubau, directed by Hardt-Waltherr Hämer, concentrated on the reconstruction of different areas in West Berlin by means of brand-new projects. Overall, IBA Altbau renovated more than 7000 existing apartments and built 360 new ones in Luisenstadt and SO36 in Kreuzberg, while IBA Neubau built about 4000 new apartments in the urban sectors under its responsibility, namely southern Friedrichstadt, southern Tiergarten, Prager square and Tegel harbor. Furthermore, both programs provided new social infrastructures in their respective areas.²⁰

The projects of IBA Neubau were designed mostly *ex novo*, considering the historical development of the city and referring to the traditional typologies of the districts involved. (Fig. 2) It was therefore mainly IBA Neubau that tackled the challenge of building new housing able to satisfy people's expectations of the 1980s while respecting historical urban forms. This article focuses on this department of the IBA, to understand what kind of concrete responses it provided to this challenge.

Founded as a mere planning society, without the possibility of getting into the substance of the concrete details of project implementation, the IBA was still bound, in many respects, by

²⁰ See: Gernot & Johanne Nalbach (eds.), *Berlin Modern Architecture*, exhibition Catalogue, Nalbach & Nalbach (Berlin, 1989), 65-69; Berlin Senat für Bau- und Wohnungswesen (eds.), *Internationale Bauausstellung Berlin. Projektübersicht. Aktualisierte und erweiterte Ausgabe* (Berlin, 1991), 204.



impositions, bureaucratic procedures, and conventions of West Berlin politics. As remarked by the American architect Wallis Miller, the IBA's facades concealed "competition designs whose interior configurations had long been abandoned to conventional housing standards, IBA planning guidelines, and the preferences and financial means of the developer."²¹ These political and economic premises (and limitations) of IBA 1987 are important to understand the specificity of the event and the difficulties that this building exhibition faced in tackling housing shortage and improving life conditions in the city center. Although stemming from a critique of modernist planning, IBA's work still showed a strong influence of urban planning standards and housing policies of previous decades.

"Zoning criteria, home layout and pattern of subdivision of sites have not been subjects of serious reflections" observed the Italian architect Pierluigi Nicolin.²² Although referring generally to inner city housing interventions in Europe in the 1980s, Nicolin's remarks apply well to Berlin and, more precisely, to IBA Berlin 1987.²³ "As a result," continues Nicolin in his text, "much of the effort has been directed towards improving facets of urban décor but as part of decayed areas and tends to intervene mainly through housing projects."²⁴

Despite these shortcomings, some aspects that made the IBA an outstanding building event for its time are worth highlighting. Although it also dealt with public housing and as such it was bound to respect contemporary building standards as earlier modernist housing estates did, IBA 1987 did not focus on *Existenzminimum*, nor on standard apartment cells. On the contrary, it proved that within social housing's limitations there was still space to experiment with historical living forms and typologies. The very idea behind the IBA can be traced back to the earliest oppositions from the 1960s to the planning practices of those years, especially to the transformation of Berlin's center into an area with a high concentration of roads – which would have caused housing to be decentralized in the suburbs. On the contrary, for IBA 1987, housing had to be reconnected to the city, its center, and its historical form. This shift in architectural and urban design practice relied on significant theoretical premises, which will be briefly explored in the following section.

21 Wallis Miller, "IBA's 'Models for a City': Housing and the Image of Cold-War Berlin," *Journal of Architectural Education*, 46:4(1993): 212.

22 Pierluigi Nicolin, "Abitare in città / Living in the city," *Lotus International* 41 (1984): 5.

23 It is worth noting, in this regard, that in issue 41 of *Lotus* much attention is devoted to Berlin and its IBA 1987.

24 *Ibid.*

Housing and Housing Typologies in the 1970s Architectural Debate

In retrospect, it may be objected that IBA relapsed into the mistake of social housing zoning. However, at least in the original intentions of the exhibition, housing was no longer seen as one of the functions of the zoned city to be separated from others.²⁵ On the contrary, for the IBA, housing needed to be re-considered and re-designed as a fundamental component of neighborhoods and of the whole city, where urban functions ought to mix again. The theoretical basis of this approach to housing and the city lies in the international debate developed from the late 1960s that questioned many modernist design principles. Particularly relevant in this regard is the theoretical contribution of the Italian neo-rationalists of the 1960s, especially that of Aldo Rossi. For Rossi, the city, its architectures, and housing are closely linked and are parts of the same whole. In his book *The Architecture of the City*, Rossi acknowledged dwelling as “primary in the composition of the city.”²⁶ In the same work, he also dedicated particular attention to Berlin, acknowledging the specific role that particular housing typologies played there since the mid-19th century.²⁷ Rossi identified essentially three fundamental housing typologies in Berlin: the courtyard block (for Rossi, the blocks resulting from the police regulations of 1851), the semi-detached house (Siedlung) and the single-family house, that is, the urban villa. In Rossi’s description, these three housing types did not mix with each other and represented different urban visions and social components of the city.²⁸

Housing played an important role in the theories and designs of the Italian neo-rationalist school. For Rossi, as for Giorgio Grassi or Carlo Aymonino,²⁹ housing was seen as a fundamental component of the city, “an element of ‘norm’ and ‘normality’ in the definition of urban form.”³⁰ During the 1970s, also outside Italy – partly parallel and partly thanks to the knowledge of these Italian theories – architects began to reconsider the historical city and its spaces, carrying out typo-morphological experiments on traditional housing typologies. If up to that moment the villa was a housing type for the wealthy urban suburbs and the block was for the dense city center, in these typo-morphological experiments of the 1970s, housing types that until then had been mostly designed independently of each other started being mixed.

It must be said, in this regard, that already from the end of the 19th century some Berlin districts, such as Tiergarten, witnessed the coexistence of blocks and villas. What distinguished the way in which these typologies mixed in the experiments of the 1970s and 1980s was that this combination was proposed also in districts where villas were mostly alien, like in Friedrichstadt. For this district, which used to be excessively dense, urban villas were seen as a solution for de-densification. Interesting examples of these compositional experiments were provided during the *Sommerakademie* (summer academies) organized by the German architect Oswald Mathias Ungers during his teaching years at Cornell University in the 1970s.³¹ In the proposals presented at Cornell, blocks and villas mixed with outcomes hitherto unknown to Berlin.

25 Berlin Senator für Bau- und Wohnungswesen, *Internationale Bauausstellung 1984. Vorlage* (Berlin, 1978), 18.

26 Aldo Rossi, *The Architecture of the city* (Cambridge, Mass.: The MIT Press, 1982), 70. In the original edition of the book (Padua: Marsilio, 1966), in the chapter on housing, and, more specifically, housing in Berlin, Rossi always uses the word “residenza.” In the English translation, two different terms are used: “dwelling,” in the subchapter *The individual dwelling* (70-72) and “housing” for the subchapter *The typological problem of housing in Berlin* (72-82). Here, reference has been made to the terminology of the English edition.

27 *Ibid.*, 72-76.

28 *Ibid.*

29 Besides Rossi’s text, some other books deserve to be mentioned in this regard, such as Grassi’s *La costruzione logica dell’architettura* (1967) or Aymonino’s *Origini e Sviluppo della città moderna* (1971) – to mention a few. See: Silvia Malcovati, “Das alte Frankfurt: Urban Neighborhood versus Housing Estate, the Rebirth of Urban Architecture,” *Urban Planning* 4 (2019): 121

30 Silvia Malcovati, “Das alte Frankfurt,” 121.

31 In this regard, see: Oswald Mathias Ungers et. al., *The Urban Block and Gotham City. Metaphors and Metamorphosis* (Köln: Studio Press for Architecture, 1976) and Oswald Mathias Ungers et. al., *The Urban Villa. A Multi-Family Dwelling Type* (Köln: Studio Press for Architecture, 1977).

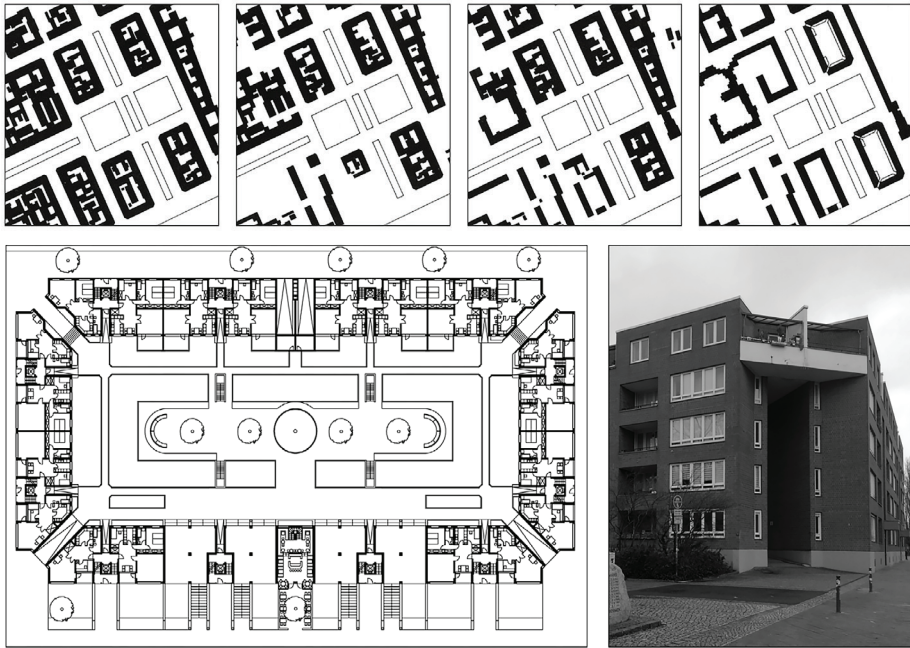


Fig. 3: Josef Paul Kleihues' Block 270 in Berlin Vinetaplatz (1971-1977). Top: Figure-ground plans of the block before World War II and after its critical reconstruction. Bottom left: ground floor of the block. Bottom right: view from the street.

In these proposals, both the villa and the block underwent transformations, becoming part of a compositional game of fragments. The villa was no longer a solution for individual residence in wealthy suburbs but would host several families, offering the possibility of living in the city and aspiring to an individual home, while also allowing a decrease in urban density.³² Also, in these “blocks composed of villas,” the 19th century block lost its continuous street façade and became fragmented, permeable. Thereby, the clear delimitation between private and public spaces that characterized the Berlin block up to the beginning of the 20th century got lost.

While the Italians tended to study urban artifacts with particular attention to typological aspects and the forms of living they implied, for German rationalists like Ungers or Kleihues morphological aspects were given greater attention. Before IBA 1987, in the 1970s, Kleihues provided an exemplary application of the “critical reconstruction” he would later advocate for in “his” IBA with his project for an urban block on Berlin Vinetaplatz (Fig. 3). This project respects the perimeter of the historic block it replaces, yet it also provides several novelties. First, it does not host any other function but housing.³³ Second, the apartments are oriented differently from those of the 19th-century blocks. Third, its courtyard is free from buildings and easily accessible from the public street. Moreover, there is no division of property underlying the new project: as in some examples of reformed urban blocks of the beginning of the century, the block is one as the plot of land on which it stands. Typologically, it is a new block built respecting the dimensions of the historical one. What remained fixed, in this design, is the perimeter of the former block – as it would be for IBA 1987. This way, the perimeter of the historical Berlin block defined the contours within which a paradigm clash could take place.

32 See: Oswald Mathias Ungers, Rem Koolhaas, Peter Riemann, Hans Kollhoff, Arthur Ovaska (eds.) / Florian Hertweck, Sebastian Marot, *Die Stadt in der Stadt Berlin: Ein grünes Archipel* (Ithaca, N.Y. and Cologne: Arnold Printing Corp. and Studioverlag für Architektur, 1977; Zürich, Lars Müller Verlag: 2013).

33 Some of the locals on the ground floor make exception, see plan Fig.3.

IBA 1987 and the Berlin Block

Excluded for decades by modernist housing concepts, the perimeter block became a central figure in the international architectural debate of the 1970s, which called for its revival in design practices. This revival should not be understood in terms of a nostalgic replica of the past: neither in the 1970s experiments nor in IBA 1987 was any block copied or reconstructed as it was. IBA Neubau's goal was not to reproduce the historical typology of the Berlin block, but rather to explore the more varied possibilities for blocks in Berlin's city center. Thus, these new blocks should have been characterized by a mix of functions and formal differentiation, as well as by new typologies that would have enriched housing in the city.

Kleihues' distancing from the 19th century block – despite recognizing many of its merits – was programmatic. He criticized its uniformity, its monotony, and the repetitiveness of houses that are all the same except for a few public buildings.³⁴ Accordingly, from the very beginning, he insisted that the blocks of IBA Neubau should have been characterized by “diversity in unity.”³⁵ In doing so, however, he set top-down requirements for houses to be varied without imposing any strict rules with the exception of the respect of both the perimeter and the eave-height of former blocks. Rules of typological nature were lacking – concerning, for example, the distribution of the houses' entrances or where servant and served spaces would face – and, thereby, which aspects of the tenants' lives would look at the courtyard.

In the Berlin perimeter blocks erected up to the early 20th century, houses' orientation was mostly uniform.³⁶ Furthermore, they used to host different functions and social classes altogether. The IBA observed this plurality of the historical Berlin typology and tried to reinterpret it in its own buildings. As previously mentioned, however, the IBA primarily designed public housing. Therefore, rather than on expectations of dwellers coming from different social classes, the plurality that the IBA addressed in its blocks depended on tenants belonging to different generations and with various cultural backgrounds.

In this respect, IBA Altbau succeeded better, modernizing apartments through direct collaboration between architects and tenants. For IBA Neubau, on the contrary, the actual target of many future tenants could be only assumed in advance and played a minor role in the design. In this regard, the German architecture critic Falk Jäger stated that the houses by IBA Neubau seemed to have been “designed from the outside to the inside. Only the shell is of interest... How it looks inside does not concern anyone.”³⁷ Raising these observations, Jäger concretely addressed his critiques to some floor plans that proved to be quite unsuccessful, suggesting that dwellers' needs were put aside in favor of the leading role of the facades.³⁸ Rather than exploring apartment plans as Jäger did, the present article concentrates on the scale of the entire IBA blocks, considering their houses together and in relation to the streets and the courtyards' open spaces.

The IBA pushed forward the 1970s academic experiments through the typo-morphological transformations of the Berlin block. Indeed, the IBA blocks result from the juxtaposition of several housing typologies: traditional ones, such as urban villas, as well as modern ones such as towers and slabs. Taken individually, each of these housing typologies implies its own idea of living in the city. When placed next to each other, however, they result in new, hybrid concepts, where different typologies combine: multi-family houses, villas, towers, 19th century houses,

34 Kleihues, *Internationale Bauausstellung Berlin 1984/87*, 23.

35 *Ibid.*, 16. Translated by the author. Original: „Vielfalt in der Einheit.“

36 The most common solution was that living rooms faced the street, while bathrooms and kitchens (often missing in the rental barracks but present in the reform blocks) faced the more intimate courtyard.

37 Falk Jäger, „Lernen von der IBA,“ *Baumeister* 12 (1989): 22. Translated by the author. Original: “die Häuser werden von außen nach innen entworfen. Von Interesse ist nur die Hülle... Wie's drinnen aussieht, geht keinen was an.“

38 *Ibid.*

row houses or terraced houses – to mention a few. This wide variety of housing solutions proposed by IBA Neubau is often mentioned in the IBA publications. Yet, as remarked in the beginning of this article, a retrospective considering the outcomes of the IBA's typological mixes around the courtyards of the Berlin block is still missing. The article's following section seeks to fill this gap by shading insights on selected case studies.

Beyond Facades: Two Examples

The following examples of blocks by IBA Neubau enable, with different focuses, to understand how the exhibition relied on various housing typologies in its critical reconstruction of the historical Berlin block. While the first example explores the theme of the villa in the block, the second focuses on the tower in the block. For each thematic example, then, the article explores two different IBA blocks chosen as case studies. In both cases, it will be shown that alongside these main typologies – villas or towers – there are also others and that the idea behind IBA Neubau was to always offer a plurality of housing concepts.

Villas in the block

In Berlin, urban villas were among the most characteristic housing typologies of the bourgeois classes in the mid-19th century. With the turn of the century, the new economic situation brought changes in this typology, as many of them were divided to be partly or fully rented. Nevertheless, even after these separations, this typology still provided advantages for individual urban living. When the IBA resorted to it in its own social housing, it made these advantages accessible for lower classes as well.

Villas are included in the IBA blocks with very different results. Block 189 in Rauchstraße, for example, designed by Rob Krier, consists mostly of villas facing both surrounding streets and the inner garden, while in other blocks villas are set back from the street and built inside the block instead. This is the case of the two IBA blocks on Lützowplatz presented here.

One of these blocks, designed by Oswald Mathias Ungers and known as block 220 (Fig. 4), was famous for its compact front, with alternating gabled and flat roofs.³⁹ Behind the iconic compact six-story facade on Lützowplatz, which was reduced to five-story houses on the minor streets along the perimeter of the block, the interior garden and three urban villas were hidden from the eyes of the passer-by. With this rich complexity, Ungers' block combined "intimacy and publicity...next to each other"⁴⁰ and provided a small microcosm protected from the chaos of the outer public space. The richness of this solution was significant for those years, especially considering that it was designed for social housing. This block clearly shows a unity of design, given that it was entirely conceived by one architect. Houses were accessible either from the public road or from the driveway that crossed the block. The plans of the houses – with duplex apartments – were mostly mirrored according to the central axis of the pedestrian path in the inner garden, where living rooms and private terraces faced one another.

Far less uniform is the block on the opposite side of Lützowplatz, known as block 234 – one of the IBA's largest and most heterogeneous blocks (Fig. 5). It faces onto Lützowplatz with a compact front where several iconic facades contend for prominence (especially after Ungers' building was demolished in 2013). Among these facades, the most well-known are probably those of the corner building by the Swiss architect Mario Botta and of the contiguous one by the English

39 For some people, however, the image of this block in its last stages of demolition is perhaps even more famous. It is, in fact, the only IBA project to have undergone this fate. The events connected with the demolition of the building and the debates about it are reported in several German newspapers as well as in a few English-language blogs, like www.architectureinberlin.com. See, for example: <https://architectureinberlin.wordpress.com/2008/10/31/destruction-at-lutzowplatz/> (accessed on May 21st, 2021).

40 Oswald Mathias Ungers, "Lützowplatz," *AD*, special Issue "Architecture in Progress. Internationale Bauausstellung Berlin 1984" (1983): 80.

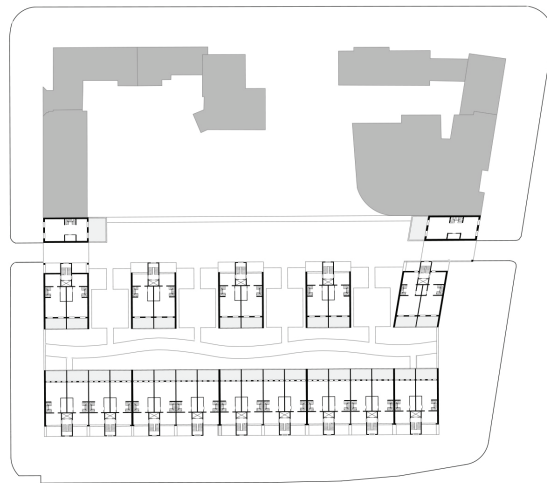
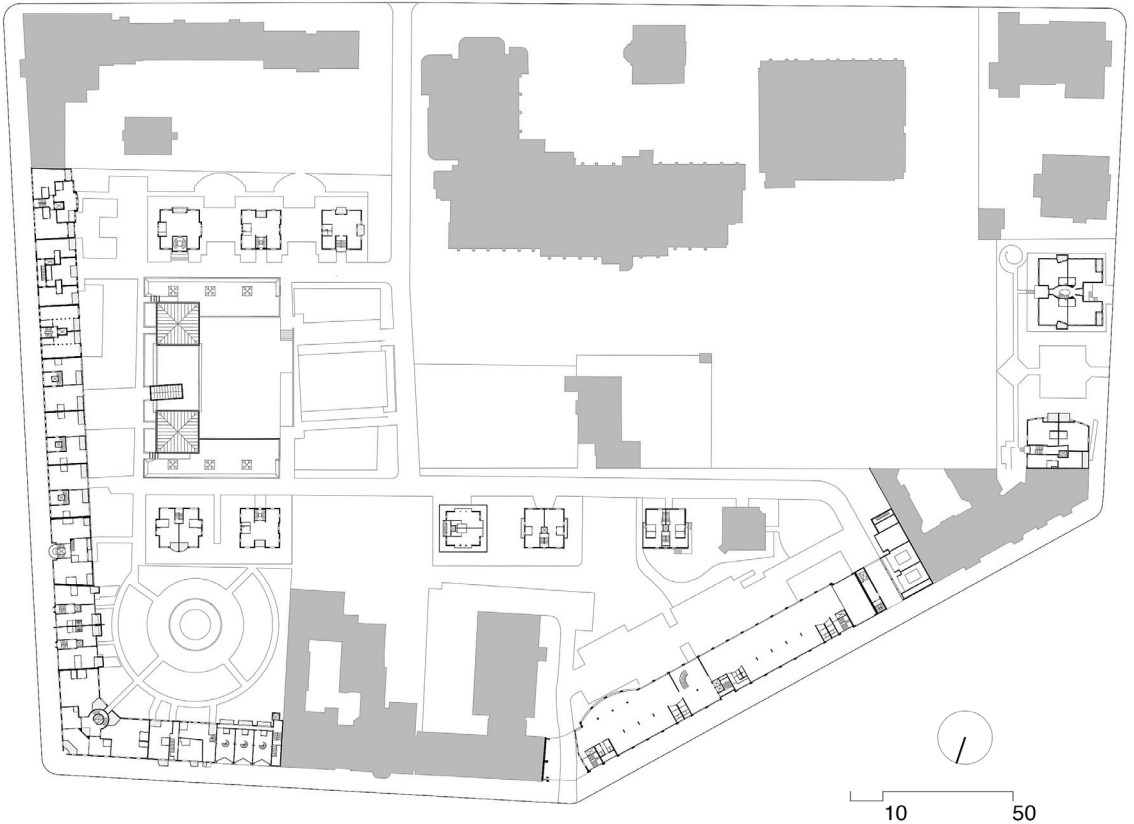


Fig. 4: Oswald Mathias Ungers' Block 220 (1983, demolished 2013). Top: Main facade on Lützowplatz. Bottom: floor-plan typologies of the IBA buildings in the block.

Fig. 5: Block 234 (1984-1992). Top: Corner Building on Lützowplatz by architect Mario Botta (with Peter Cook's house beside it, on the right). Bottom: floor-plan typologies of the IBA buildings in the block.



architect Peter Cook. Walking around the block until one encounters an open doorway or a small alley providing access to the playground in the inner courtyard, one will discover that behind the facades there is a microcosm. It's another "urban island," not far from Ungers' one. In the courtyard of this huge block there is a kindergarten, a small public playground, and several villas.

Overall, block 234 includes ten urban villas:⁴¹ five of them are in the northern part of the courtyard close to the kindergarten, four in its southern part and finally one in a more conventional position, directly facing the Kurfürstenstraße south of the block. Thus, block 234 provides examples of different implementations of the urban villa, either with or without contact with the public street. If one considers the interior of these villas, this diversity increases: sometimes each floor hosts a different apartment, while in other cases two or more different apartments share the same floor. Moreover, some villas have duplex apartments, thereby adding a further advantage for the intimacy of the tenants, namely the division of living and sleeping rooms.

Differently from the homogeneous apartment solutions provided in Ungers' block 220, in block 234 not only the villas, but also the IBA buildings along the block's perimeter host different apartment typologies. Given this extreme variety of solutions, it is hard to identify a single principle behind the design of its parts (the houses) within the whole (the block). In both blocks 220 and 234, villas are present alongside rows of houses along the perimeter of the block, thereby providing a richness of solutions, previously unknown to both the Berlin block typology and public housing.

Three towers in Friedrichstadt

Moving from Lützowplatz to the southern part of Friedrichstadt, in Berlin Kreuzberg, the number of villas decreases.⁴² Instead, one comes thrice across a much less common housing typology in early 20th century Berlin: the tower.

Among IBA's towers, the most iconic one is probably the "Kreuzberg Tower," designed by John Hejduk in the so-called Block 11. (Fig. 6) It has fourteen floors and includes seven duplex apartments, originally conceived as studios for students and artists. Next to this tower, Hejduk designed two lateral buildings, which resume the aesthetics of the tower and the eave-height of the 19th century building nearby. Thanks to their "anthropomorphic" facades and their inverted gable roofs, these two buildings impose themselves, together with the tower, as protagonists in their surroundings. Hejduk's project presents a formal and spatial solution that is extremely different from the adjacent 19th century house. For example, the three buildings that constitute the project do not define a closed courtyard. The half-public space they frame is a small garden that directly communicates with the public street south of the block. Given the presence of towers and housing slabs, moreover, it is easy to understand that the housing typologies proposed in Block 11 are far from those of Berlin's tradition.

To have a complete vision of the IBA's intervention in this block, the house designed by the Austrian architect Raimund Abraham also needs to be considered. This house, whose small apartments have often complex and not optimally resolved floor plans, faces Friedrichstraße with an extremely individualistic facade. Behind this façade hides a small courtyard that is separated from the other spaces of the block.

In Block 11 there is no relationship between these two IBA projects besides a visual link – from Abraham's courtyard it is difficult to ignore the presence of Hejduk's tower. Moreover, apart from the fact that both projects respect the eaves height of the historical buildings nearby (with exception of the tower, of course), none of them relates to former houses in the same block. Also in this case, as in the two blocks in Tiergarten previously described, the IBA

41 One of these villas, although planned to be built for the IBA according to the design of the architect Daniel Libeskind, was eventually not built for the IBA.

42 In Kreuzberg, the villas planned for the IBA in the housing complex *am Berlin Museum* – whose masterplan was designed by architects Hans Kollhoff and Arthur Ovaska – are an exception.

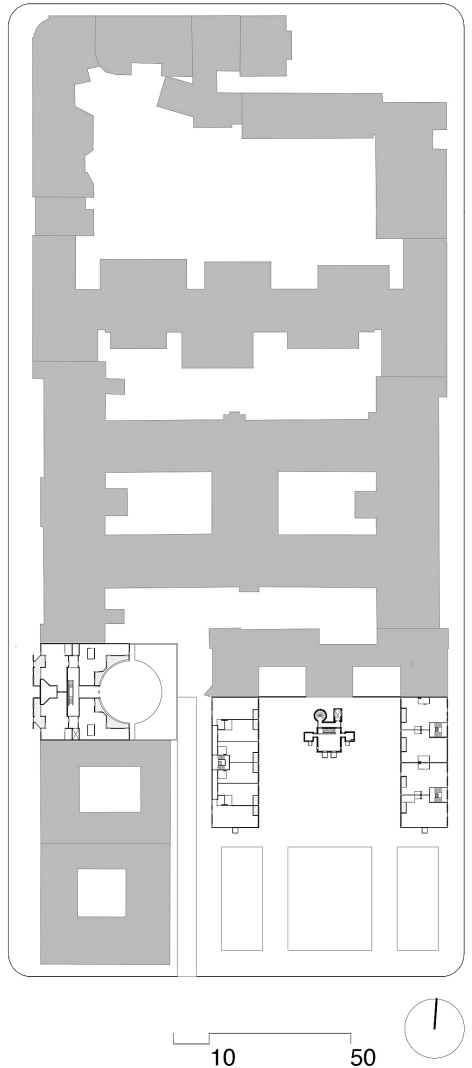


Fig. 6: Block 11. Top left: Raimund Abraham's house on Friedrichstraße (1985-1987). Bottom left: John Hejduk's Kreuzberg Tower (1986-1988). Right: floor-plan typologies of the IBA buildings in the block.

focused mainly on housing. Except for the commercial spaces on the ground floor of Abraham's building, indeed, the functional mix that characterized the historical city is totally missing in the IBA projects built in the block.

Less than three hundred meters away from block 11, on the opposite side of Wilhelmstraße to the iconic corner building designed by the Italian architects Aldo Rossi and Gianni Braghieri, are two other IBA residential towers, designed as part of Block 9. (Fig. 7) Here, the composition of the block, and the integration of the tower buildings in it, is different from Block 11: first, in Block 9 towers are not withdrawn from the street but face it directly; second, these towers are contiguous to other buildings, or are part of a more complex group together with other IBA buildings within the block. Thus, they do not stand alone.

Block 9 also demonstrates a very heterogeneous range of housing solutions and spatialities. Besides the two towers, the case of the self-made terraces is worth mentioning,⁴³ a small group

43 This name is due to the fact that, in these houses, dwellers were involved in the design process of their apartments.



Fig.7: Block 9 (1985-1988). Top: View from Wilhelmstraße of the tower designed by Grupo 2C, with Pietro Derossi's tower in the background. Right: floor-plan typologies of the IBA buildings in the block.

of row houses facing a dead-end street inside the block. Next to these terraces, the tower designed by the Italian architect Pietro Derossi overlooks Wilhelmstraße. Together with the other IBA tower designed by the Spanish group of architects *Grupo 2C*, Derossi's project stands out from the lower buildings nearby.

While Derossi's tower is a punctual building along the perimeter of the block,⁴⁴ the one by *Grupo 2C* is part of a system of linear buildings between Wilhelm- and Anhalterstraße, where it gives emphasis to the corner. Both these towers have one apartment on each floor, except for the three-story student apartments in the tower by *Grupo 2C*. Moreover, the latter offers its residents communal spaces on its top floor. The idea of providing spaces for the community on the top of a building, recurrent also in other projects by the IBA, is alien to the tradition of the Berlin block and is rather reminiscent of the collective roof in the modernist living machine *par excellence*: Le Corbusier's *Unité d'Habitation*.

Conclusions

"Apropos of IBA," wrote Colin Rowe, "a city of perimeter blocks must, of necessity, be better than a city of Zeilenbauen, but it is far from good enough... I am sure that IBA is still the best that exists. It is charged, I am sure, with an impossible mission."⁴⁵ Building upon Rowe's remarks, some final considerations can be made summing up the main points raised in this article. It was noted that for IBA 1987, as for previous *Bauausstellungen*, housing was a fundamental topic. However, unlike previous building exhibitions, in IBA 1987 housing returned to being an issue for the heart of the city rather than for its margins and separate from other urban functions. To achieve this goal, IBA 1987 departed from the planning principles and architectural typologies that had been hitherto proposed in the years after World War II. Instead, it relied mostly on the typology of historical Berlin's perimeter block.

⁴⁴ The original project envisaged, beside the tower, a lateral building that was never built. See: Lotus International 58 *Trascrizioni/ Transcriptions* (1988): 53 f.

⁴⁵ Rowe, "IBA," 93.



In the urban blocks that IBA Neubau “critically” reconstructed, the uniformity and the rigor of the International Style should have been replaced by a variety of forms, spaces, languages, and apartment types. The use of the verb “should” here is intentional, since not all the original ambitions of IBA Berlin 1987 were fulfilled. Certainly, if one considers the projects of the IBA as a whole, a great variety of forms and languages was achieved. This variety of different approaches, styles, and housing typologies that were implemented proves that, after all, what was intended to overcome the Modern Movement turned out to be as multifaceted and complex as the Modern Movement itself, by which – as this paper pointed out – many IBA projects were still deeply influenced. Within this “IBA variety,” most of the literature concentrates on individual projects,⁴⁶ thereby losing sight of the complexity of the whole IBA blocks and of the variety of housing solutions that these blocks offer.

This article sheds insight only on a few examples of IBA blocks, since a broader assessment of the issue would deserve its own research.⁴⁷ Nonetheless, these examples already allow one to understand the complexities, the weaknesses, and the potentials of the housing issue in the blocks by IBA Neubau. As Rowe remarked, as great as the original concept of the IBA might

46 In this respect, the web page of the *Forschungsinitiative IBA*, a research project conducted between 2010 and 2012 by the synergy of Berlin’ universities, archives, and other cultural institutions, partly fills this gap as it offers very comprehensive descriptions of some blocks. See: <http://f-iba.de/>

47 A more comprehensive overview of the blocks by IBA Neubau is provided in the ongoing PhD thesis of the author, carried out at RWTH Aachen together with Prof. Uwe Schröder (Department of Spatial Design) and at the University of Bologna with Prof. Annalisa Trentin.

have been, it was not enough to achieve its goal of making districts lively again. Certainly, residence is a fundamental urban component, as highlighted in Aldo Rossi's remarks reported in this article. However, Rossi himself highlighted the importance of the public alongside residence.⁴⁸ Only if the private and the public spheres properly coexisted could a city, or an urban neighborhood, be worthy of being called as such.

Still today, the IBA Neubau's districts suffer from a lack of public functions. Although the IBA had partially foreseen the integration of these functions, indeed, this was never actually achieved. This situation got even worse since many IBA houses were privatized in the early 2000s and the increase in rents was not accompanied by an improvement in their qualities, which remained those of social housing. Nevertheless, the IBA has left an example, perhaps the last on a large scale in Europe, of an initiative in which public housing played a leading role – not one on peripheral greenfield sites, but in the city instead. Undoubtedly, IBA 1987 left many issues that would need improvements – for instance, the open and semi-public courtyards in a context lacking truly public functions, as well as an excessive number of projects lacking proper relationship within their block. It must be acknowledged, however, that the IBA's "mission impossible" – to quote Rowe – was extremely ambitious and left examples from which the current practice would still have to learn.

IBA 1987 based its public housing projects on thorough theoretical reflections. Moreover – and partly because of the outcomes of these theoretical reflections – it showed how many possibilities could be offered within the framework of a public housing initiative. But above all, the IBA approached housing as an architectural issue, trying to encourage a synergy between architects and different political and social actors, rather than, as is often the case today, as a topic of interest only for estate investors.

Recently, several publications and initiatives addressed Berlin's architecture of the 1980s and the IBA,⁴⁹ showing a renewed interest in a deeper understanding of this important chapter of Berlin's architecture; the last one of relevance before the broken city was reunited. While in the 1990s the lesson of the IBA was partly resumed and implemented in the reconstruction of the district Mitte after the fall of the Wall, in recent years similarly courageous initiatives are lacking – initiatives that dare to risk the "mission impossible" of reweaving the relationship between public housing, architecture, and urban design.

REFERENCE LIST

- Architectural Design (AD). *Architecture in Progress. Internationale Bauausstellung Berlin 1984*. Special issue, edited by Russel Frank. London: Academy Editions, 1983.
- Berlin Senator für Bau- und Wohnungswesen (edited by). *Internationale Bauausstellung 1984. Vorlage zur Beschlussfassung über die Vorbereitung und Durchführung einer internationalen Bauausstellung in Berlin im Jahre 1984*. Berlin, 1978.
- Berliner Senatsverwaltung für Bau- und Wohnungswesen, IBA 1987 (edited by). *Internationale Bauausstellung Berlin. Projektübersicht. Aktualisierte und erweiterte Ausgabe*. Berlin, 1991.
- Bodenschatz, Harald, and Polinna Cordelia. *Learning from IBA – die IBA 1987 in Berlin*. Berlin, 2010.
- Cramer, Johannes, and Niels Gutschow. *Bauausstellungen. Eine Architekturgeschichte des 20. Jahrhunderts*. Stuttgart: Kohlhammer, 1984.
- Davey, Peter, and Clelland Douglas. "Berlin. Origins to IBA." *Architectural Review* 1082 (1987): 23-28.
- Jäger, Falk. "Lernen von der IBA." *Baumeister* 12 (1989): 20-23.
- Kleihues, Josef Paul (ed.). *Internationale Bauausstellung Berlin 1984/87. Die Neubaugebiete. Dokumente. Projekte Heft 7*. Stuttgart: Gert Hatje, 1993.

⁴⁸ Aldo Rossi, *The Architecture of the City*.

⁴⁹ Among the most recent publications on these issues see: Claudia Kromrei, *Postmodern Berlin. Residential Buildings of the 1980s* (Salenstein: Niggli, 2018); Esra Akcan, *Open Architecture. Migration, Citizenship, and the Urban Renewal of Berlin-Kreuzberg by IBA-1984 / 87* (Basel: Birkhäuser, 2018), Andreas 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*.

- Malcovati, Silvia. "Das alte Frankfurt: Urban Neighborhood versus Housing Estate, the Rebirth of Urban Architecture." *Urban Planning* 4 (2019): 117-133.
- Miller, Wallis. "IBA's 'Models for a City': Housing and the Image of Cold-War Berlin." *Journal of Architectural Education* 46, nr. 4 (1993): 202-216.
- Miller, Wallis. *Tangible Ideas: Architecture and the Public at the 1931 German Building Exhibition in Berlin*. PhD diss., Princeton University, 1999.
- Nalbach Gernot, and Nalbach Johanne (eds.). *Berlin Modern Architecture*. Exhibition Catalogue. Berlin: Nalbach & Nalbach, 1989.
- Nicolin, Pierluigi. „Abitare in città / Living in the City." *Lotus International* 41 (1984): 5.
- Peters, Paulhans. "The Ground Plans Behind the Facades." *Baumeister* 5 (1987): 62.
- Pugh, Emily. "Beyond the Berlin Myth: The Local, the Global and the IBA 87." In *Berlin Divided City 1945-1989*, edited by Philip Broadbent and Sabine Hake, 156-167. New York: Bergahan Books, 2010.
- Rossi, Aldo. *The Architecture of the city*. Cambridge Mass.: The MIT Press, 1982.
- Rowe, Colin, and Fred Koetter. *Collage City*. Cambridge Mass.: The MIT Press, 1978.
- Rowe, Colin. "IBA: Rowe reflects." *The Architectural Review*, 1051 (1984): 92-93.
- Ungers, Oswald Mathias, et. al. *The Urban Block and Gotham City. Metaphors and Metamorphosis*. Köln: Studio Press for Architecture L. Ungers, 1976.
- Ungers, Oswald Mathias, et. al. *The Urban Villa. A Multi-Family Dwelling Type*. Köln: Studio Press for Architecture L. Ungers, 1977.
- Ungers, Oswald Mathias, Rem Koolhaas, Peter Riemann, Hans Kollhoff, and Arthur Ovaska (eds.) / Hertweck, Florian and Sebastian Marot. *Die Stadt in der Stadt Berlin: Ein grünes Archipel*. Ithaca, N.Y, and Cologne: Arnold Printing Corp. and Studioverlag für Architektur, 1977. Zürich, Lars Müller Verlag: 2013.
- Van Gameren, Dick. "Die Wohnung unserer Zeit Berlin." In *DASH – Delft Architectural Studies on Housing. "Housing Exhibition"* 9 (2013): 93.

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REMARKS ON THE IMAGES

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