

Mies and Reich between Krefeld and Brno: toward the transformation of a modern architecture

Mies y Reich entre Krefeld y Brno: hacia la transformación de una arquitectura moderna

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Abstract

This article examines the Lange and Esters Houses (Krefeld, 1927–1930), designed by Mies van der Rohe together with Lilly Reich, through a critical comparison with the Tugendhat House (Brno, 1928–1931). Its main objective is to clarify how, in a brief period of time and geographical space, a significant transformation took place in Mies' architectural principles, marking a milestone in his European career. The methodology used consists of a comparative architectural analysis that addresses the urban context, spatial organisation and construction technology. The results show that the Krefeld villas represent an architecture that, although still rooted in the tradition of brick as a load-bearing element, marks the beginning of a formal, conceptual and material refinement that culminates in the Tugendhat House, where the metal structure is emancipated from the enclosure, the spaces are integrated and the architecture is presented as a work of art in itself. Between Krefeld and Brno, in just one year and within a short distance, the collaboration between Mies and Reich conceived a new way of doing architecture.

Keywords:

Krefeld; Mies van der Rohe; Lilly Reich

Resumen

Este artículo examina las Casas Lange y Esters (Krefeld, 1927-1930), diseñadas por Mies van der Rohe junto a Lilly Reich, a través de una comparación crítica con la Casa Tugendhat (Brno, 1928-1931). Su objetivo principal es esclarecer cómo, en un breve intervalo temporal y geográfico, se produce una transformación significativa en los principios arquitectónicos de Mies, marcando un hito en su trayectoria europea. La metodología adoptada consiste en un análisis comparativo arquitectónico que aborda el contexto urbano, la organización espacial y la tecnología constructiva. Los resultados evidencian que las villas de Krefeld representan una arquitectura que, aunque todavía arraigada en la tradición del ladrillo como elemento portante, inicia una depuración formal, conceptual y material que culmina en la Casa Tugendhat, donde la estructura metálica se emancipa del cerramiento, los espacios se integran y la arquitectura se presenta como una obra de arte en sí misma. Entre Krefeld y Brno, en tan solo un año y a escasa distancia, la colaboración Mies-Reich concibe una nueva forma de hacer arquitectura.

Palabras Clave:

Krefeld; Mies van der Rohe; Lilly Reich

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Introduction

Architectural criticism of Mies van der Rohe has often focused on analysing his most iconic projects and simply describing those that have not been considered significant in his career. Although only a few historians –basically Neumeyer (1995) and Tegethoff (1985)– have studied his early single-family residences⁴, all have agreed on the importance of his theoretical projects from the 1920s, despite the fact that they were never built and display a certain ambiguity between expressionism and rationalism. As critics have pointed out, the *Friedrichstrasse* Skyscraper and the Glass Skyscraper (1921 - 1922), the Concrete Country House (1923), the Concrete Office Building (1923) and the Brick Country House (1924) served as a laboratory for researching concepts, materials and structures, from which Mies discovered a series of key principles that he did not, however, put into practice in his contemporaneous residential buildings. Accordingly, Beatriz Colomina (2009) notes that there was a kind of schizophrenia between what Mies physically built and what he published in competitions and magazines as a manifesto. In other words, his thinking, published in the media of the time, and his architectural output were completely divergent.

When studying the phases of Mies' European period (Santatecla, 2005: 365), theory and practice began to converge in the Tugendhat House in Brno (1928-1931), a landmark building in his architectural achievements during this period. In this project, Mies (together with Reich) brought together everything he had learned in Germany, representing a sum of concepts, which he began to subtract, refine and overcome during his American period... less is more. But what happened between the last of his theoretical projects, the Brick Country House, and the Tugendhat House? At the risk of oversimplifying, one event stands out that had consequences for his professional development: Mies joined the *Deutscher Werkbund*, which led to his collaboration with Lilly Reich and the beginning of his experimentation in the field of ephemeral architecture. In terms of commissions,

Mies and Reich built the Krefeld Villas (1927-1930) and were responsible for three exhibitions: the *Die Wohnung* Exhibition in Stuttgart (1927), the *Café Samt und Seide* in Berlin (1927) and the International Exhibition in Barcelona (1929), where, among other projects, they were responsible for the iconic German Pavilion.

Between Krefeld and Brno, they only held exhibitions; between Krefeld and Brno, only one year elapsed. However, between Krefeld and Brno, the concepts developed in completely equivalent dwellings evolved considerably. While the exhibitions made it possible for concepts to be tested on a real scale, the houses in Krefeld also served as an empirical setting for their later architecture, combining traditional brick construction with new architectural principles in line with the tenets of rationalism and the German avant-garde.

Therefore, the purpose of this article is to explore in detail the importance of the Lange House and the Esters House—only discussed exclusively by Kleinman (2015) and Lange (2007)—in order to gain a better understanding of the creative process of Mies van der Rohe's European period, in which it should not be overlooked that from 1926 until 1938, the year he emigrated to the United States, it was carried out together with Lilly Reich.

Beginnings

Mies van der Rohe's professional career did not begin with formal training at any school of architecture. Instead, he learned the craft of architecture through drawing and construction, skills he acquired mainly while working in the studios of two important architects, Bruno Paul (1907-1908) and Peter Behrens (1908-early 1912). In 1913, Mies opened his own office, first in the Berlin neighbourhood of *Steglitz* and a year later in the small town of *Lichterfelde*. By 1915, separated from his wife and daughters, he had set up his studio and residence in the western district of Berlin. It was at this point when, blurring the boundaries between his personal and professional life, he joined various circles of the German avant-garde and began to publish a series of theoretical

⁴ The houses that Mies van der Rohe built before publishing his theoretical projects were: Riehl House (*Potsdam-Neuebabelnsberg*, 1906-1907), Perls House (*Berlin-Zehlendorf*, 1911-1912), Kröller-Müller Villa (*Wassennar*, 1912-1913), Werner House (*Berlin-Zehlendorf*, 1912-1913) and the Urbig House (*Potsdam-Neuebabelnsberg*, 1915-1917).

manifestos that had nothing to do with the single-family homes he designed for real clients.

Mies' theoretical experimentation with glass, concrete and brick not only contradicted the houses he built⁵, but also to the writings that accompanied these paper architectures. Their texts emphasised the expressive clarity of the structure –in terms of form, aesthetics and visual impact– but this was not represented in his projects; furthermore, his discourse rejected form, advocating the importance of function (Mies van der Rohe, 1922; 1923), but his drawings were pure formalism. As a side note, it is clear that Mies was proud of his manifesto buildings, as they were all shown in his first exhibition in America, the *Exhibition of Architecture by Ludwig Miës van der Rohe. Art Institute of Chicago, 1938-1939*, shown in Figure 1. These five projects were also exhibited in 1947 in his monographic exhibition *Mies van der Rohe* organised by Philip Johnson at the Museum of Modern Art of New York.

It was in 1926 when his writings began to show a certain coherence and similarity with his architecture. From then on, as Mies himself stated in his lecture on 17 March 1926, published and translated for the first time by Fritz Neumeyer (1995: 382), he no longer subordinated architecture to materials and construction, producing an evolution from objective and external factors to the subject-creator: “it is not enough to build well, one must seek beauty; It is not enough to organise the function correctly; it is necessary to satisfy man's spiritual needs. Nor can technique alone produce true forms; the spiritual will must prevail over it.” (Santatecla, 2005: 352). Also around that time, at the Stuttgart Exhibition, Mies spoke for the first time about the possibilities of spatial flexibility offered by a portico structure, which he was able to experiment with for the first time with steel in his collective housing block, although still embedded in plastered brick walls (1927).

Figure 1. Exhibition of Architecture by Ludwig Miës van der Rohe, AIC, 1938-39



Source: © Edward V. Olencki papers (BOX 1), Bentley Historical Library, University of Michigan

⁵ The houses built by Mies at the same time as his theoretical projects were: the Eichstaedt House (*Berlin-Nikolassee*, 1921-1923), Kempner House (*Berlin-Charlottenburg*, 1921-1922), Feldmann House (*Berlin-Grunwald*, 1921-1922), Mosler House (*Potsdam-Neuebabelnsberg*, 1924-1926) and Wolf House (Gubin, 1925-1927), the first villa in which Lilly Reich collaborated on the interior design and furnishings.

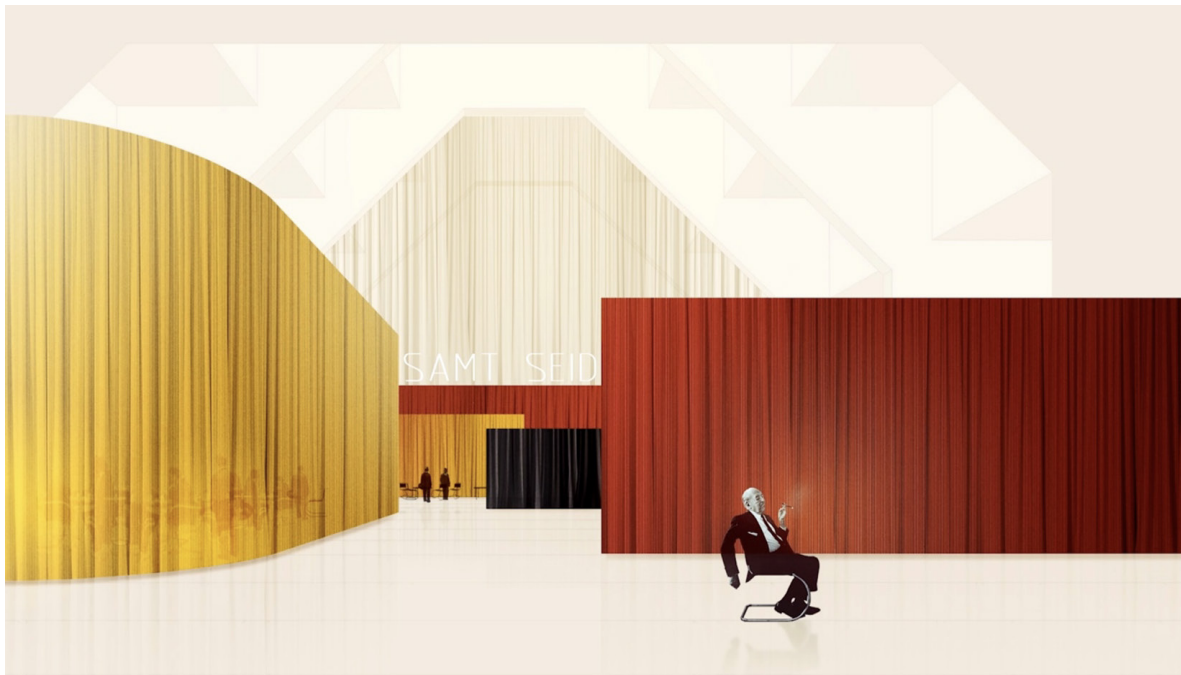
Although almost none of the historians specified this in the monographs that have chronicled the life and work of Mies van der Rohe, the year 1926 also coincided with the beginning of his collaboration with Lilly Reich—born in 1885 and by then an established designer with a consolidated career in fashion, exhibition design and interior architecture, as well as an active member of the *Deutscher Werkbund*—and his immersion in the world of ephemeral architecture (Lizondo and Domingo, 2023). This was a setting in which he was able to experience the sensations of the subject as they moved through spaces made up of ethereal materials such as textiles and glass. In fact, it is possible to trace the sequence of his glass architecture—from the Skyscraper on *Friedrichstrasse* to the *Glasraum*—the study of which is crucial to understanding his American architecture. In contrast, the trajectory of his architecture using materials such as concrete and brick, not commonly used in exhibitions, is not as apparent. However, brick was used in some of his most representative projects, such as the memorial to Karl Liebknecht and Rosa Luxemburg (Berlin-Lichtenberg, 1926), and played a leading role in his most important

commission upon his arrival in Chicago, the university buildings on the campus of the Illinois Institute of Technology (IIT).

And once again, between the Brick Country House and the IIT, are the Krefeld Villas, next to the Lemke House (*Berlin-Hohenschönhausen*, 1932-1933), which are the last and most advanced projects built with exposed brick.

Although the Lange House and the Esters House were built very early in Mies and Reich's professional relationship, they were preceded by important projects such as the Wolf House, the *Glasraum*, the *Linoleumraum* and the *Café Samt und Seide*, an installation created for the Lange family, which can be seen in Figure 2. At this point, it is important to highlight the beginning of the relationship between Hermann Lange, director of *Vereinigte Seidenwebereien AG* (Verseidag), a leading company in the silk industry in the German region of Rhineland, and the Mies-Reich association, as Lange was one of their regular clients throughout the whole of the German period (Lange, 2017). In fact, Elaine Hochman considered that “Mies's achievements without the Langes would be like speaking of Michelangelo without the Medicis” (1989: 58).

Figure 2. Collage *Café Samt und Seide*, Berlin, 1927



Source: © Avelina Prat and Fundació Mies van der Rohe, [On set with] Lilly Reich

Although many theories suggest that Lilly Reich was the link between the two, as Mrs. Lange and Mrs. Esters were regular customers at her fashion *atelier* in Frankfurt (Tegethoff, 1985: 61), Christiane Lange, based on a letter from Karl Nierendorf to Mies, asserts that Mies and Hermann Lange met in 1927 at the *Galerie Nierendorf* during the Exhibition *Das Gesicht von Berlin* (Lange, 2007: 21-18; Prat, 2021). Hermann Lange visited this exhibition, which included works by Mies and other artists of the time, as he had been searching for years for an architect to design two houses on adjacent plots, one for his own family and the other for his colleague and friend, Josef Esters.

Lange, in addition to being a businessman, was one of the leading collectors of contemporary art in the Weimar Republic (Maruhn, 2001: 318), so he not only wanted a home for his family to enjoy, but also a place with exhibition spaces for his personal collections. Mies and Reich therefore approached the commission with a view to fulfilling both functions, that of a home and an art gallery. It was the perfect commission: a residential space in which Mies had extensive experience, and an exhibition space in which Reich enjoyed a long career and widespread recognition. A comprehensive project, including custom-designed furniture, which, although it fit in with the newly initiated collaboration, was not the ideal space in which to implement all the concepts they were testing in their temporary architecture.

From Krefeld to Brno 1927-1931

Next, we proceed to compare the Krefeld villas with another contemporary residential project by Mies and Reich, all of which were built after 1926, a year that saw greater convergence between what Mies wrote, drew and built. Thus, the Lange and Esters Houses, 1927–1930, as a joint project, are compared to the Tugendhat House, 1928–1931⁶. This is the point where this analysis becomes interesting, since despite their proximity in time, these projects present radically different architectural approaches. The aim is not only to discern this process of change, but also one of

the key moments in Miesian thinking, when Mies embarked on a new way of doing architecture.

The social and urban context

According to the plans preserved in the Mies van der Rohe Archive, work on the Krefeld Villas began in August 1927 and was completed in July 1928. Excavation of the site began in October of that year, and construction was completed in the summer of 1929, with the exception of some interior details and furnishings, which were delayed until early 1930. Thus, the materialisation of the project coincided with the work that Mies and Reich were developing for the Stuttgart Exhibition and its completion within the short period of time in which visitors to the Barcelona International Exhibition were able to enjoy the German Pavilion designed by Mies and Reich.

The houses were located on two adjacent plots of very similar size on *Wilhemshofallee*, a middle-class residential neighbourhood in the north-east of the city of Krefeld, Germany. This area was an important link between the historic centre and the *Stadtwald Park*, whose urban development, based on a residential typology of isolated blocks set back from the street, dated back to 1880 (Kleinman & Van Duzer, 2005: 22). Following these premises, the Lange and Esters Houses were designed with a generous entrance area facing the street and a large rear garden, where the living areas of the houses were located. As can be seen in the 1930 aerial photograph, compared to the current image, Figure 3 (see next page), at that time it was an urban area in the process of consolidation.

Although the terrain was relatively flat, the houses were raised slightly, so that the small difference in height from the public road justified the existence of a podium, which also separated the domestic area from the landscape, as Frank Lloyd Wright had already done in his prairie houses (Cohen, 2018: 63). There was therefore a transition between the built interior and the natural exterior through an architectural filter; a stepped route which, unlike the Barcelona Pavilion or the Tugendhat House, was clearly

⁶ The comparison is made by analysing the villas in Krefeld according to a series of parameters commonly established in the field of architectural design, for subsequent comparison with the Tugendhat House, which has been extensively studied by architectural critics and is therefore not discussed in detail in this article.

Figure 3. Aerial photo from 1930 compared with current aerial photo



Source: Diagram created by the authors based on files provided by the Stadtarchiv Krefeld (1930) and Google Earth, respectively, 2023

frontal. Also, as these were isolated buildings, two lateral spaces were created on each plot. Of particular interest was the one facing east, as the terrain was significantly modified, gradually lowering the level to the basement floor by means of a ramp that provided access for vehicles and connected the more urban space with the garden.

The commission for the Tugendhat House came about while the plans for the houses in Krefeld were being finalised, at the same time as Mies and Reich were absorbed in the design of the Barcelona Pavilion. Grete Weiss Löw-Beer and Ernst Tugendhat were a married couple similar to the Langes: upper class, cultured and linked to avant-garde artistic circles and the textile industry. Their aim was to enjoy a second home on a plot of land located on a hill in the *Cerna Pole* neighbourhood of Brno, in the Czech Republic. The plot in Brno was much smaller and irregular, with a steep slope, but nevertheless resembled those in Krefeld in the compactness of its urban façade—requiring no frontage and rising only one storey—and in the opening to the garden at the rear.

The topography dictated a different access route: while in Krefeld it was via the middle floor, the daytime area, in Brno it was via the upper floor, the night-time area. This resulted in a downward route with numerous twists and turns and a walkway towards the main space that was very different from that of the Lange and Esters Houses. Furthermore, while the houses in Krefeld had a uniform volume on a podium or platform, in the Tugendhat House, the ground floor itself

served as a podium for the middle floor, which was completely dematerialised and topped by two offset sections on the upper floor. The side spaces were also important in Brno. The summer and winter gardens continued the living space of the house, which was connected to the garden with barely any symmetry between the architecture and the landscape.

Finally, while the windows in Krefeld sought to provide a view of an anthropized garden, in Brno everything was a large opening that connected the living areas with the nearby nature of the garden and the distant landscape, offering a view of the wooded meadow and *Spielberg Castle* in the background. This difference can be seen in Figures 4 and 5 (see next page).

Figure 4. Casa Lange, Krefeld, 1927-1930, interior view



Source: © The authors, 2021

Figure 5. Casa Tugendhat, Brno, 1928-1931, interior view



Source: © Miloš Budík, 2015. Study and Documentation Centre - Vila Tugendhat

Space-function

The houses in Krefeld were designed to meet the domestic, professional and exhibition needs of two middle-class families in the Weimar Republic. They were accessed via the middle floor, through an L-shaped projection highlighted by a canopy. This level, at street level, was intended for family life and public activities, and its functional layout was very different from the upper floor, which was used for bedrooms. While the night area featured small, completely enclosed spaces, the day area sacrificed privacy for scale and was connected by circulation routes and views, creating an art gallery effect. The routes were not linear, instead configured with twists and turns that required visitors to move through the space to reveal it: spacious and well-lit, but with a classic concept in the transition between rooms. This case is very similar to the Brick Country House in terms of the succession of spaces within the walls. Thus, there was no single space, but instead a functional specialisation. This layout has facilitated the versatility of the design over decades, as can be seen in the comparison shown in Figure 6:

photographs of the Lange House taken almost a century apart. In addition, the daytime rooms were linked to the large rear garden, forming a diagonal that opened up the spaces to the afternoon sun, visually connecting the interior and exterior through a sequence of oblique frames shown in Figure 7 (see next page). The night-time rooms, on the other hand, were located around a corridor and had no direct relationship between form and volume. However, it should be noted that the initial sketches differed substantially from the final ones and, as Mies himself said: “I wanted to make this house [Haus Lange] much more in glass, but the client did not like that. I had great trouble” (Kleinman, 2005: 12). After abandoning the idea of a continuous glass panel, Mies and Reich sought alternatives that would maintain a direct relationship with the garden. They proposed a brick wall façade with large horizontal perforations separated from the floor by about 90 centimetres, and implemented a significant technical innovation: the possibility of lowering and concealing the glass panels with an electric motor, a mechanism that was later integrated into the Tugendhat House.

Figure 6. Comparison of the Lange House, 1930-2021 (1/2)



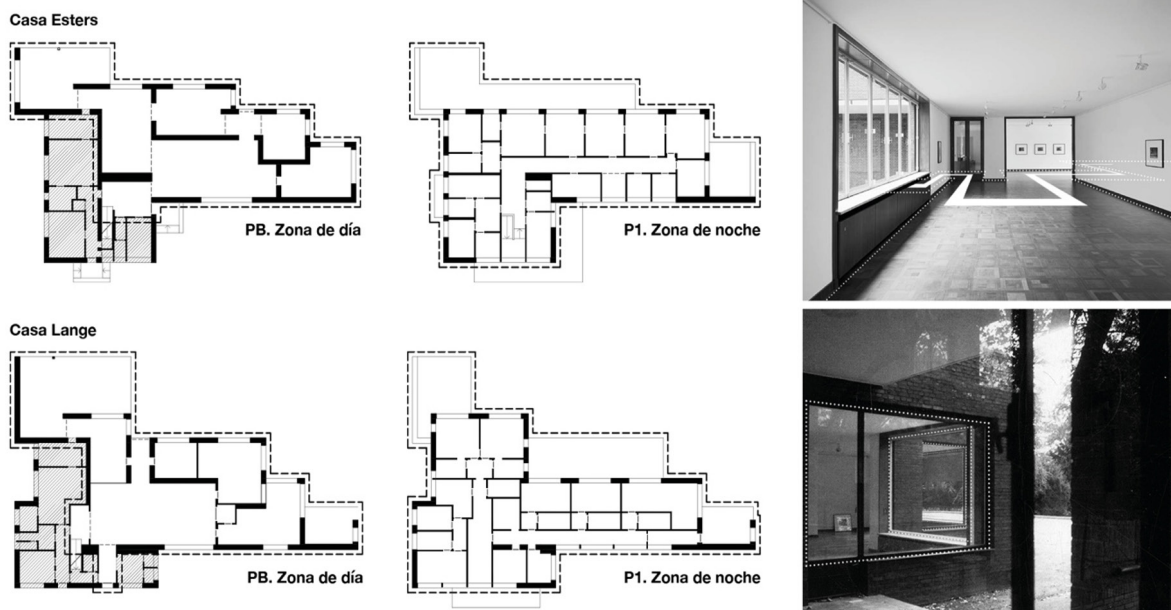
Source: © Avelina Prat and Fundació Mies van der Rohe, [On set with] Lilly Reich

Figure 6. Comparison of the Lange House, 1930-2021 (2/2)



Source: © Avelina Prat and Fundació Mies van der Rohe, [On set with] Lilly Reich

Figure 7. Lange and Esters House, 1927-1930. Functional comparison of floor plans and views. The Esters House shows an interior image of the twists and turns of the main hallway, while the Lange House shows the interconnection of interior and exterior spaces



Source: © The authors, 2023

In their comprehensive approach to architecture and interior design, Mies and Reich also sought to achieve greater fluidity in daytime spaces, conceiving them as single surfaces divided into sections by furniture and a series of parallel walls. It was not possible either: “I was in Guben yesterday with Mr. Esters and Mr. Langner. Both gentlemen are excited, but cannot be talked out of the idea that the individuals rooms have to be separated by doors” (Lange 2006: 49). Finally, the daytime spaces in the Krefeld villas were separated by conventional walls and doors. However, floor-to-ceiling glass doors were incorporated into the public areas of the Esters House and removable wooden panels were used in the Lange House, as had already been done in the *Weissenhofsiedlung* building in Stuttgart.

All in all, the approach taken in the initial sketches represented an evolution in the architecture of Mies and Reich, between the Barcelona Pavilion and the Tugendhat House, the latter with functional requirements similar to those of Krefeld – a three-level layout, including a service basement – but with a clearly different spatial result. In Brno, they did manage to build the large, unified space, which was also flexible, as demonstrated during the Second World War and afterwards. Figure 8 shows the versatility of the home converted into a gym, which originally had four spaces differentiated by the furniture, a circular Makassar ebony floor, an onyx wall and velvet curtains. To access this space, they created a walkway: from the outside, the staircase descended into a transparent interior with views of the landscape. The sliding sections of the rooms in Brno, with their large associated outdoor spaces, also had nothing to do with Krefeld.

Thus, it could be said that while the houses in Krefeld were designed to display works of art, as gallery-homes, the Brno House showcased the architecture itself as a work of art, a gallery-home. It was practically a re-imagination of what Mies and Reich had built shortly before in Barcelona.

Materiality, technology and structure

The material that stood out above all others in the Krefeld villas was the red brick, worked with precision and in a modern style. Mies drew all the elevations of the houses on a scale of 1:20, paying close attention to the brickwork and indicating the number of bricks per course (K,

Figure 8. Comparison of the Tugendhat House, 1930-2021



Source: © Miroslav Ambroz (top); Miloš Budík, 2015.
Study and Documentation Centre - Vila Tugendhat (bottom)

Klinker) and the mortar joints on each section (F, *Fuge*). Unlike his previous brick projects, where he used Flemish bond, in the Esters and Lange Houses he used English bond, alternating rows of stretcher and header bricks. This meant that in the recesses, the rows of bricks laid in a bond pattern were transformed into rows laid in a stretcher bond pattern, and vice versa. Therefore, in the longitudinal elevations, the lintels were laid in a bond pattern, and in the lateral elevations, they were laid in a stretcher bond pattern. In addition, it was necessary to use a second type of brick in the corners, at the end of the rows laid in a stretcher bond pattern, and in the door and window jambs.

But what was truly innovative about the use of brick in Krefeld was the steel framework embedded and integrated into the masonry walls. This meant that the structure behaved differently from traditional load-bearing walls and, by using a mixed structure, Mies incorporated steel technology for three purposes: to improve the structural performance of the brick walls without compromising their appearance, to build walls without continuity, and to create large horizontal openings –single-piece windows with electric motors that allowed the glass panels of the *Senkfenster* to be lowered–. The lintels, as can be seen in Figure 9 (see next page), were not constructed using rows of bricks, but rather from exposed angle sections, which are the only external traces of the steel.

When analysing the existing structural plans in the Mies van der Rohe Archive, one can see real ingenuity in combining steel profiles inside the brick walls. In the sequence from the ground floor to the first floor, there are discontinuities that are unusual in a load-bearing wall system, and challenges such as introducing long shelves embedded in the walls. All this made it necessary to redistribute the loads using Peiner beams, metal profiles with a relatively low inertia. Cross braces were also incorporated in the centre of the vestibule opening, responding to the discontinuity of a lowered roof along the corridor that allowed light to pass into the bedrooms. Figure 9 shows one of the structural plans for the Lange House, specifically the one showing this detail.

The dark exterior of the brick contrasted with the sober and elegant interior. Neutral interiors in which to display art, where walnut and oak wood played a prominent role: the wall separating the living room from the dining room in the Lange House, the exterior woodwork, the doors, the flooring and all the fixed furniture. The interior frames and skirting boards were also made of wood, forming a continuous strip with which Mies and Reich framed openings, rooms and their transitions, highlighting a unique feature such as the lack of alignment between facing doors (Kleinman & Van Duzer, 2005: 101). In addition, the entrance doors were made of richly textured Macassar ebony.

For all these reasons, the structure of these villas had no apparent order, nor did the supports for the enclosure walls stand alone. The walls served both purposes and were built according

to the spaces they had to delimit, without any clear rhythm or modulation. Once again, the houses in Krefeld were halfway between what had been tried in Stuttgart– the metal structure hidden in the plastered walls of Mies' apartment block, as if they could not be separated from their load-bearing function– and what was built in Barcelona, where the wall was completely detached from the structure, a transitional condition that anticipates the full structural and spatial emancipation achieved in the Tugendhat House (Tegethoff, 1985).

In the German Pavilion, and later in the Tugendhat House, Mies and Reich definitively liberated the wall from its structural role by means of an independent steel frame, allowing enclosure elements to act exclusively as spatial delimiters while the structure explicitly organised the space. This operation, first tested under the experimental conditions of the pavilion, was translated in Brno into a residential architecture in which structure, space and materiality operate as a coherent and continuous system.

As for the Tugendhat House, it is a little-known fact that Mies intended to build it with exposed brick, but the lack of skilled labour and the poor quality of the brick in that area led him to opt for smooth white stucco instead. ¿What would have happened if he had found high-quality materials and skilled bricklayers? Would the project have been more similar to the one in Krefeld? There is no way of knowing, but it is obvious that the Tugendhat House is a direct translation of the experience of the German Pavilion of 1929 into a project built with a specific client and design. Both projects –Barcelona and Brno– incorporated a discovery that changed the way Mies understood architecture: the liberation of the wall from its load-bearing function, with a subtle difference from Le Corbusier's use. For Mies, the wall and the metal structure, both freestanding, remained associated but differentiated from each other: the wall had the sole function of separating spaces, and the structure not only had the function of supporting, but also of explicitly organising the space. Ebony, onyx, travertine, velvet and chrome-plated steel were the materials chosen for the surfaces and supports.

Paradoxically, the rough exterior of the Krefeld brick evolved into whiteness, and the neutrality of the interiors of the German villas was transformed into colour and texture in Brno.

Figure 9. Casa Lange, Krefeld, 1927-1930. Exterior and interior views (top); structural detail in section (bottom)



Source: © The authors, 2021 (top); document 6.140 Mies van der Rohe Archive, gift of the architect. © 2023 Artists Rights Society (ARS), New York / VEGAP, Spain, 2026 (bottom)

The design of the fixed furniture in the Lange and Esters houses also progressed, contributing towards the configuration of the Tugendhat House as the total work of art shown in Figure 10 (see next page).

Conclusions

The Lange and Esters Houses were the starting point for the confluence of Mies's thinking and architecture, coinciding with the beginning of his collaboration with Lilly Reich, a renowned interior designer and ephemeral architect who was a regular feature in the media of the time. Furthermore, the

Krefeld Vilas were the midpoint in a series of jointly designed exhibition buildings: the exhibitions in Stuttgart and Berlin took place before the project was completed, and the one in Barcelona after, although before the houses were finished.

As can be seen in the comparative analysis between Krefeld and Brno, Mies and Reich brought to fruition a reflective process centred on the relationship between architecture and its surroundings, open floor plans, ambiguous boundaries, materials and, of course, the relationship between the enclosure and the structure. Over the course of this year, they implemented indirect routes that invited discovery, eliminated windows in

favour of large glass panels, broke with the unitary volumetry of the project by breaking it down into levels and elements of different materials, and transformed the sequential spaces into a unitary space. Textured exteriors became neutral, and sober interiors became both elegant and opulent. And in their comprehensive work, which included interior design, furniture went from being constructed of wood to being made of lightweight metal tubing. In reality, they went from designing spaces linked to art to spaces where architecture was the true work of art.

In material terms, the change was substantial. The structure went from being designed with a mixed brick and steel system to being exclusively metallic; the enclosures and supports no longer acted together but were separate and independent. The structure not only supported, but also organised and defined the space, helping to dematerialise the limits of an architecture that sought the indeterminacy of boundaries. For all these reasons, the Krefeld Villas were a turning point in the exploration of the possibilities of the brick wall. Although modern techniques were used – incorporating steel, as there was no precedent for traditional walls with lintels of such dimensions and without continuity – months later the brick walls were replaced by chrome columns

in the shape of a cross and by panels of marble, wood, glass and velvet. Not only that, but the next time Mies built with brick, many years later and on another continent, it was without a load-bearing function and independent of the steel structure. A structure that in Europe was contained within the interior space and in America moved closer and closer to the limit until it moved decisively away in his final building, the Neue National Galerie in Berlin.

Krefeld and Brno; Germany and Chicago; structure and enclosure... so near, and yet so far. 

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Figure 10. Tugendhat House, Brno, 1928-1931



Source: ©Avelina Prat and Fundació Mies van der Rohe, [On set with] Lilly Reich

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