



Robbrecht en Deem architectuur, Mies 1: The Golf Club Project, Krefeld, Germany. © Thomas Hick, 2013.

Mies van der Rohe meets Robbrecht en Daem *architecten*. History of a 1:1 Model based on the Design of Mies van der Rohe

BY CHRISTIANE LANGE

Mies 1:1 The Golf Club Project (Krefeld, Germany, May-October 2013) was an exhibition consisting of an architectural model on a 1:1 scale which could be viewed and accessed physically. Christiane Lange and the initiative *Projekt MIK e.V.* built the model together with Ghent-based architects Robbrecht en Daem according to the plans for the clubhouse at Krefeld Golf Club. These were drawn up by Mies van der Rohe in 1930, but never implemented. This article depicts the development and the course of the project as well as the conceptual involvement of the participants within the context of Mies van der Rohe's oeuvre, the debate regarding reconstruction and the goals of the exhibition.

Summer 2013: a long, flat formation of wood and steel lies nestling in swaying cornfields at the top of a hill on the outskirts of Krefeld. *Mies 1:1 The Golf Club Project* is an architectural model on a 1:1 scale which can be viewed and accessed physically. The initiative *Projekt MIK e.V.* built the model together with Ghent-based architects Robbrecht en Daem¹ according to the plans for the clubhouse at Krefeld Golf Club. These were drawn up by Mies van der Rohe in 1930, but never implemented. For a period of 6 months, it provides a report of Mies van der Rohe's architecture at the height of his European career. The attitude of a memorial was inherent to the design as it refers to the context of his origins².

After its opening in May 2013, news of the 1:1 model circulates slowly through the professional and public media and it attracts more and more visitors. The model is accessible at any time, including at night. It stands free within the landscape for which Mies van der Rohe had planned it. There was a golf course here until 1938, but then the area was turned into a practice area for troops. After the closure of the British bases following German reunification, the area was restored and listed for environmental protection.

During the day, tour guides are available at the 1:1 model and offer descriptions and background information. There are no signs with information. The 1:1 model is an exhibit, not an exhibition space. The cash desk and bookshop are set up on a makeshift table - a wooden board on trestles.

Many visitors book tours. Many universities come with large groups of students. Whether joggers or cyclists, or simply out for a walk, people constantly pass through the building: once there was even someone on a horse! Occasionally, the 1:1 model becomes a venue for academic or cultural events. In the open building, they are exposed to the changeable Rhineland weather.

Some visitors told us that they feel overwhelmed by the spatial effect of the 1:1 model. The place exudes an atmosphere of great peace and triggers a feeling of longing. The

rhythm of the columns, the wide-framed views, the hall, reminiscent of a prostyle: all of this radiates an atmosphere that was conveyed to the visitors. Is it the "consistency", which Alexander Schwarz uses when talking about the 1:1 model to refer to Heidegger – an experience of "truth" – that arouses these observations?³

Many were saddened that the building was only temporary. The comments in the guestbook and on social media bear witness to such unusual reactions to an architectural exhibition.

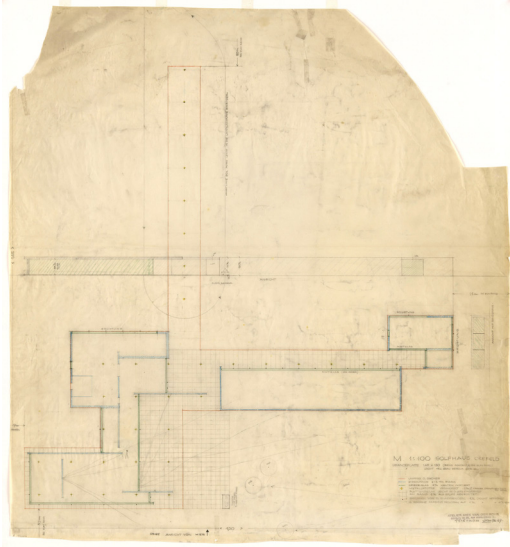
Some, however, thought it was simply a waste of money because the model was to be taken down again after six months⁴.

The 1:1 model achieved something that a presentation with plans, sketches, photographs and spare models could hardly have achieved. It was completely self-explanatory and direct. The physical presence of the architecture leads foremost to knowledge through experience, not through description. This ability of the object to mediate by spatial experience was underpinned by the specific quality of the building. The 1:1 model did not try to suggest a functional building. It always revealed enough to allow Mies van der Rohe's spatial idea to become tangible and visible, but where no clear decision was recognizable in Mies van der Rohe's plans, or where it was not necessary to include it in order to make plain his architectural concept, it retained the nature of a sketch. It hung in the space between physical architecture and architectural concept. That it was made possible to conceptualize and implement this intermediate space as an architectural form is the achievement of the architects Robbrecht en Daem. They transposed Mies van der Rohe's design from 1930 to a temporary contemporary model.

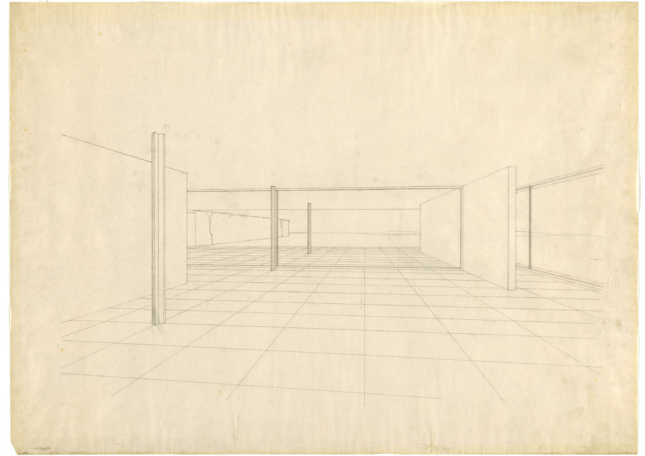
Background History: 1927–1937

Mies van der Rohe received nine commissions from a group of influential silk factory owners from Krefeld, their companies and their association between 1927 and 1937. The

01 Mies van der Rohe, Ludwig (1886-1969): Golf Club Project, Krefeld, Germany. Plan, 1930. New York, Museum of Modern Art (MoMA). Pencil and colored pencil on tracing paper, 44 1/2 x 41 3/4 (113 x 106 cm). Mies van der Rohe Archive, gift of the architect. Acc. n.: MR19.40. © 2017. Digital image, The Museum of Modern Art, New York/Scala, Florence.



02 Mies van der Rohe, Ludwig (1886-1969): Golf Club Project, Krefeld, Germany, 1930. New York, Museum of Modern Art (MoMA). Pencil on tracing paper, 28 1/4 x 39 1/2" (71.8 x 100.4 cm). Mies van der Rohe Archive, gift of the architect. Acc. n.: MR19.47. © 2017. Digital image, The Museum of Modern Art, New York/Scala, Florence.



private houses for the silk entrepreneurs Hermann Lange and Josef Esters (1927-1930), which today form part of the Kunstmuseen Krefeld, along with Mies van der Rohe's only factory building, the *Verseidag* dyeworks and *HE*-building (1930-1931), remain shining examples of this cooperation today. These are in addition to the groundbreaking exhibitions *Café Samt & Seide* (Silk & Velvet Café) and *Deutsche Seide* (German Silk), which Mies van der Rohe implemented together with Lilly Reich, to represent the silk industry association in 1927 at the Berlin trade fair *Mode der Dame* and in 1929 at the *Barcelona International Exposition*. In this context, the interior design for Herman Langes's daughter (Crous apartment 1930) is one of the few remaining furniture ensembles from Mies van der Rohe and Lilly Reich. The house for Ulrich Lange (1935), the *Verseidag* headquarters (1937-1939), and Mies van der Rohe's 1930 competition entry for the clubhouse of the newly-founded Krefeld Golf Club remained unbuilt.

But it was not only the private passion of those involved that played a role in this series of commissions in Krefeld which remained unique for Mies van der Rohe. There were also economic factors to be considered. The demands of the avant-garde had the goal of raising the image and artistic quality of German silk fabrics⁵. Apart from Mies van der Rohe and Lilly Reich, other representatives of the Bauhaus movement were called to Krefeld to influence the training of textile designers. In the wake of the aforementioned trade fairs, the establishment of the *Flächenkunstschule* (school for textile design) followed in 1931, led by former Bauhaus teachers, Johannes Itten and Georg Muche, followed by several Bauhaus graduates⁶.

Mies van der Rohe and Model

The model did not set out in any way to be eventually realized as an actual clubhouse for a golf course. On the contrary, it was to

present itself in every respect as a prototype, a model, an exercise, or a three-dimensional structure, the aim of which was to explore and, if possible, to reveal Ludwig Mies van der Rohe's architectural thinking⁷.

It is known that in 1912 Mies van der Rohe had the opportunity to apply for the commission to design a residence for the Dutch art-collector couple Kröller-Müller. Like Peter Behrens before him, he was requested to build the design as a model on a scale of 1:1 at the desired building site. The story of this "canvas cathedral" as Rem Koolhaas calls it, has always given rise to fantasies but remains an unconfirmed myth⁸. The photographs taken of it were regarded as photo collages and, thus, represent a medium that Mies van der Rohe would later use in various ways. Today we know from the letters of Helene Kröller-Müller, that around the turn of 1912/13, Mies van der Rohe worked with great zeal and personal energy on the building of this model of wood and canvas, painted it white and, finally – which will disappoint many – personally even painted brickwork on to it⁹. Mies van der Rohe's first model on a scale of 1:1 was a backdrop architecture.

It is the interplay of Helene Kröller-Müller's capricious artistic sense, the couple's apparently unlimited financial resources, and Mies van der Rohe's will to land the commission that allow this story to oscillate between perfection and complete exaggeration. It also shows, however, that the customer did not trust small-scale models, plans, perspectives, or descriptions to form an opinion, but wanted to see the planned architecture in its true size at the original location. Both aspects were inspiring for the "invention" of Mies 1:1.

A presentation model on 1:1 scale – the model for Kröller-Müller can be seen as such – remained a one-off event in Mies van der Rohe's career, though he did work with models. Numerous stories from his co-workers and trainees



make plain the central role that simple volume models of cardboard, detail models on 1:1 scale, and town-planning models played in Mies van der Rohe's own design process and in his teaching methods at the Bauhaus, not to mention later at the Illinois Institute of Technology. Mies van der Rohe is said to have told his students, "never think, always try!". "The work with the model was always the first step in the design process, not sketching", says Werner Buch¹⁰. It is no coincidence that Mies van der Rohe is often to be seen together with architectural models in photographs.

Mies van der Rohe and Reconstruction

The story of the 1:1 model for Kröller-Müller remains as prominent in our minds during the implementation phase of Mies van der Rohe's 1:1 as the regularly brewing debate about architectural reconstruction projects, which, even after in-depth expert differentiation of the topic, is never settled¹¹. "Jetzt ist Früher heute" [now the past is today] claimed Hanno Rauterberg in 2012¹². With the successful reconstruction of the Barcelona Pavilion in the 1980s alongside Peter Palumbo's initiative to posthumously implement one of the architect's skyscraper designs for London, and the 2010 reconstruction of the interior design of Haus Tugendhat in Brno, the architecture of Mies van der Rohe, at the time of our first deliberations with regard to the 1:1 model, had already been represented 3 times in very prominent reconstruction works. Even my first cooperation with Robbrecht en Daem *architecten* in 2007 can also, in part, be attributed to this field: within the scope of the exhibition *Mies & Reich. Möbel und Räume* [furniture and interiors] in the Museum Haus Lange, the former private residence could be seen once again with its original interior design, created by Mies van der Rohe and Lilly Reich¹³.

In recent years, the Drinking Hall in Dessau (2012), which Mies van der Rohe designed during his time at the Bauhaus, has also been rebuilt. There is currently an initiative to

rebuild the destroyed Haus Wolf in Guben at its original location. Mies van der Rohe should therefore be top of the table when it comes to reconstructions of his work¹⁴.

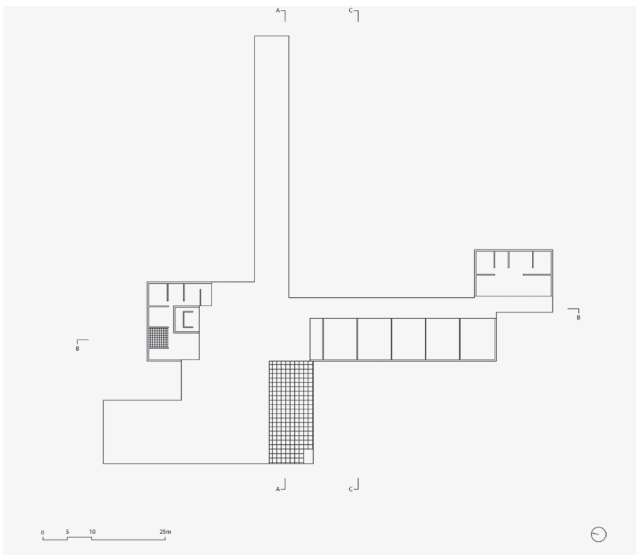
This debate did not interest us at first. However, it was unavoidable and only right that our project is perceived in this context. On the one hand, Mies van der Rohe's 1:1 can be interpreted as a reconstruction of an architectural concept. The idea was to use plans and drawings as "fixed ideas, to create the authentic spirit of planning"¹⁵. Apart from that, as a real object, it makes a very direct reference to a time in the past. It combines past and present, not only, however, because it was born out of a time in the past, but because of our current interest in this past. "The memory interest of the present has caused the building to be re-constructed. (...) It is a storehouse of memory, it is ready to be filled"¹⁶.

An Exhibition with only One Exhibit

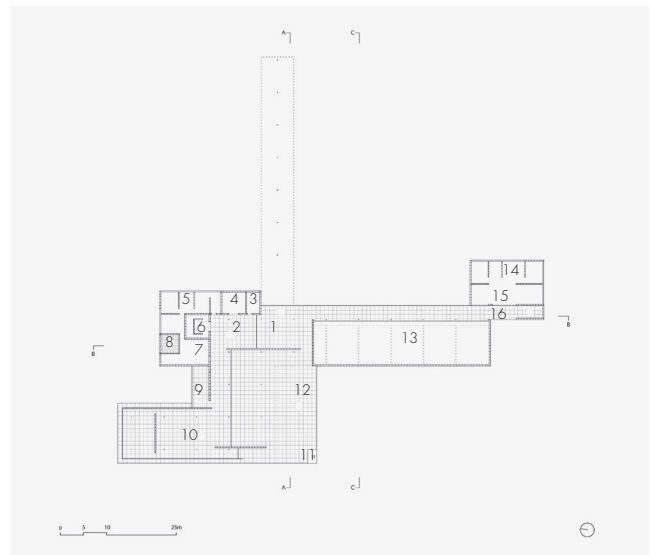
During the preparations for a publication and a documentary film on the extensive cooperation between Mies van der Rohe and his "Krefeld friends", the desire arose to present this topic to a larger audience with an exhibition¹⁷. Although Mies van der Rohe's model from 1912, with its painted brickwork, did not seem something to aspire to, the story of its creation was inspiring. Instead of using plans, photographs, perhaps little models and drawings to tell the story of Mies van der Rohe in Krefeld, we decided on an exhibition with a single exhibit: A walk-around architectural model of what would have been, without a doubt, the best work that Mies van der Rohe created for Krefeld, a "missing masterpiece"¹⁸.

Created at the high point of Mies van der Rohe's European career, it bears witness to the mature language of his architecture, which he handles with aplomb. It belongs to a series of just a few designs which were carried out between 1928 and 1931 and rendered Mies van der Rohe's reputation no less than iconic: the Barcelona Pavilion of 1929; Haus

04 Robbrecht en Daem *architecten*, Mies 1:1 The Golf Club Project, Krefeld, Germany, 2013. Level 1.



05 Robbrecht en Daem *architecten*, Mies 1:1 The Golfclub Project, Krefeld, Germany, 2013. Level 0. [1. entrance 2. lobby 3. telephone 4. bar 5. manager's dwelling 6. wardrobe/wc 7. kitchen 8. patio 9. bridge room 10. hall 11. sculpture 12. terrace 13. changing rooms 14. trainer's unit 15. shop and workshop 16. caddies 17. canopy]



Tugendhat in Brno, 1928-31; and the show house at the 1931 Berlin Building Exhibition.

From an Impossible Replica to an *Objet d'Architecture*

*There were, after all, two aspects: the approach taken by the curator, architects, engineers, and builders, comprising an in-depth study of how to do justice to this unbuilt Mies van der Rohe masterpiece; and the question of how this architectural experience could in itself achieve an identity and a degree of autonomy*¹⁹.

Despite the comprehensive research on Mies van der Rohe's oeuvre and my own well-developed knowledge of his European work, it was clear from the beginning that the implementation of this project was not to be achieved by means of architectural-historical analysis alone. First of all, a project of this scale (approx. an area of 2300 m²) requires professional architectural knowledge. The technical view, however, also had to be expanded upon with an artistic aspect. It would not be enough to simply render the data from the sources, to the millimeter, to a detailed technical design. In fact, profound research and exact knowledge of the material offered in the plans were the only prerequisites for moving beyond what was measurable and visible to the actual core of the concept. It was not our intention to create a "likeness", but to distill the core of Mies van der Rohe's architectural concept and transpose it to a form valid for the present – the year 2013.

Robbrecht en Daem *architecten*

*If the full scale model was not a building, it was definitely architecture: an objet d'architecture, an architectonic construction with its own raison d'être*²⁰.

The Ghent architectural firm Robbrecht en Daem *architecten* took on the task of realizing the 80-year-old design as a temporary model. Their architectural work is distinguished by its closeness to contemporary artists for whom, or with whom, they work, for example with Franz West on the design of the Rubensplain in Knokke²¹. At the same time, they can look back on numerous projects in which they have had to negotiate the constraints of traditional architecture or listed buildings, such as the restoration and extension of the university library of Henry van de Velde in Ghent. In 2012, the Market Hall in Ghent city center was one of the finalists for the Mies van der Rohe Award; the archives of *Bordeaux Métropole* from 2015 were nominated for the same prize in 2017²².

The Sources

*This body of drawings of the Krefeld Golf Clubhouse formed the basis for a series of ideas and final choices of how the scale model could be built. It is extremely satisfying to read the plans in the manner of a conductor working through a musical score, setting out emphases, rhythm, and flow. As you read, the musical architecture takes shape in your mind*²³.

Mies van der Rohe's design for the Krefeld Golf Clubhouse was the result of a small competition. In the summer of 1930, the chairman of the newly-founded club invited two architects to participate in a competition to build the clubhouse: they were the local, well-respected architect August Biebricher and Mies van der Rohe, who was also well-placed due to several successful commissions for the Krefeld silk industry.

The location of the clubhouse on top of a hill on the outskirts of the city was, at this time, already established and the creation of the golf course was underway. Both architects delivered their designs on time. No decision was ever



made because the competition was canceled at the beginning of 1931. The club had realized that the financing of the clubhouse was no longer certain due to the economic crisis.

Mies van der Rohe's entry, sent by post, consisted of a floor plan titled "final state"; at least 4 perspectives, one of which was colored; a bird's eye view as well as a descriptive text including a rough calculation. No more information on this "final state" is available. After the cancellation of the competition, Mies van der Rohe had no reason to continue to detail the design or begin planning its implementation.

In addition to this bundle of documents, the Mies van der Rohe archive in New York has around 70 drawings, plans and sketches from his estate, of which around two thirds pertain to the design finally selected for the competition. Also among these is the only remaining section through the planned building. They offer a certain insight into the reflections and considerations during the design process²⁴.

Mies van der Rohe, the Golf Club Project, 1930

The wide cone of land needs a flat, expansive building that will blend in with the landscape. The view demands that the building should be open to the South, the West and the North²⁵.

A solution verging on the utopian, with parts of the building underground in the hill, was rejected instead for an expansive flat building, parts of which jut out eccentrically into the landscape. In accordance with the points of the compass, it lay cross-shaped on the summit of the hill.

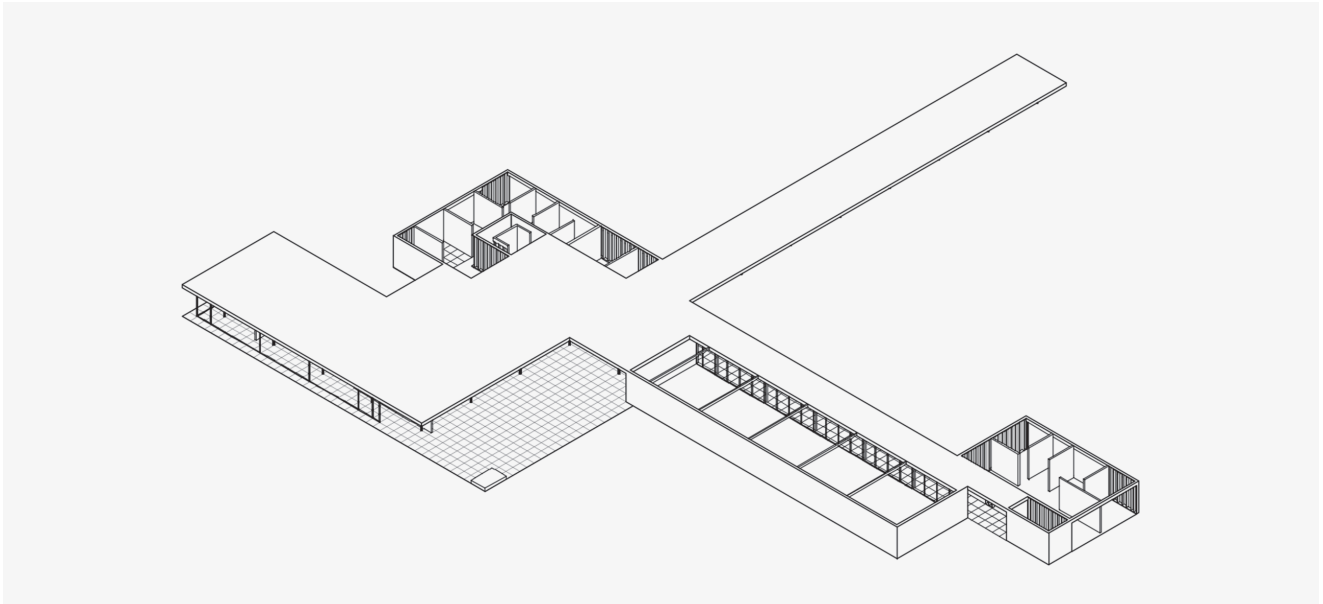
A section through the building and a layout plan offer detailed information on the entire design, as well as on how Mies van der Rohe had intended to allocate the functional areas. The rooms are clearly labeled "hall", "lobby", "changing rooms", "terrace", "bridge room" etc. Views of the individual façades and illustrated drawings were not available and it is difficult to know whether they ever exist-

ed. Several perspectives show the access road with the entrance area and the terrace, as well as several views of the "hall" and the "lobby" in the social and events area. Mies van der Rohe's attention was, however, not on the details of the design. The question of the materials that would be used, as well as other details, had not yet been addressed. His interest was far more focused on the views through the building and on the building within the landscape. With these perspectives, Mies van der Rohe illustrates using just a few fine lines – which was typical for him – his idea of space and of the interweaving of architecture with the surrounding nature.

Mies van der Rohe has developed the functional areas demanded in the competition documents as separate structures brought together under a single roof. The arrangement of the building structures has been carefully developed in small sketches. The grid of the supporting structure, which he drew in at the beginning with light strokes on the sheet, serves as a starting point and as the basis of the composition. In the sketch, it has the function of the baseline, the bars of which can be said to be the visible meter, while freestanding walls and window elements are set in a syncopated relationship with these elements. Mies van der Rohe's deep conviction that the "construction" provides the basis of architecture is clearly visible here: "The structure is the backbone of the whole and makes the variable floor plan possible. Without this backbone, the floor plan could not be free but would be blocked chaotically"²⁶.

The grounds of the club were to be accessible via an access road in the East. A 50-meter-long canopy, supported by seven centrally positioned pillars, leads the visitor to the entrance while offering protection from the sun and rain.

The visitor can still see nothing of the expansive hilly landscape on the other side of the building as the clubhouse blocks the view. Towards the south, the wing containing the locker room extends as a horizontal cube, opened exclu-



sively when approaching. In the north and the west lie the rooms of the club.

The expansive openness is only hinted at in the passage to the terrace. It is only after the car is parked, the bag stored, and clothes changed that the golfer enters the terrace and sees the expansiveness of the landscape. Also, guests who did not come to play golf would have to pass by the cloakroom, reception, telephone room and bar before reaching the hall. Mies van der Rohe sets in scene the surrounding nature as landscape images. Freestanding walls on the north and on the west side arrange the panorama into framed views. Three carefully measured views to the south, west and north transform the unspectacular landscape into paintings. Mies van der Rohe depicted the view of the surrounding landscape in several perspectives, employing the grid of the floor tiles as perspective construction lines. They attract the eye to the vanishing point where the “undulating horizon approaches the perfect horizontal”²⁷. The fact that this portrayal contradicts the floor plan, which does not include such a grid on the floor in the inside area, does not seem to bother Mies van der Rohe. The important thing for him is not to illustrate his design, but to unfold his notion of space.

Robbrecht en Daem – The 1:1 Model, 2013

*Anything that was not clear in the plans and drawings, we did not build. A building without facades. We left out certain elements of the construction, either because they would not have contributed any significance to the architectural experience, or for economic reasons. A building without a roof*²⁸.

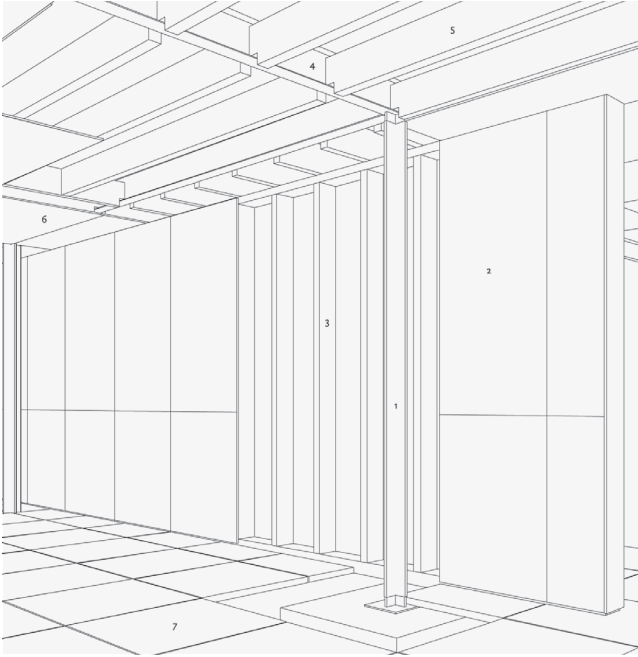
For the arriving visitor, the 1:1 model is perceived as a flat building of around 5 meters in height. The eccentric parts of the building stretch from north to south and from east to west over a length of 90 meters.

The load-bearing structure of the model accords with the steel-skeleton structure which Mies van der Rohe hinted at in his sketches. The walls and roof are built as wooden constructions and are paneled with white, scoured maritime pine slabs. Only 3 freestanding wall elements, in the hall and between the entrance area and the terrace, are treated with a surface of clear varnish to emphasize their grain. The various types of treatment are carried out in reference to Mies van der Rohe’s preference for valuable wall materials, such as those used at the Barcelona Pavilion and at Haus Tugendhat. The flooring is carried out in gray concrete slabs with dimensions of 1 x 1 meter. Thin glassless frames hint at the window and door elements; the freestanding wall elements serve to arrange the space.

Mies van der Rohe often only gave outlines of the ancillary areas of the complex, providing just a few references to the room division. Information on the window openings and the sill heights either varied or were not available. The design was still at a stage in which the design of these areas played no role. For this reason, in the 1:1 model, these parts of the building are fragmentary: the locker rooms and the trainer area in the south, as well as the inn tract in the northern part of the complex have been carried out without a roof; the flooring slabs have been implemented as gravel and the framework stands have been left open in some places. In the context of the model, they develop their own, almost sculptural effect: this offers an important counterbalance to the suggestive effect of the space of the lobby and the hall.

The rich grace of the 32 visible steel columns of the supporting construction creates an obvious contrast to this minimalism. Representing “false spolia” they break up the reduced material language of the model. Paneled with polished high-grade steel, the surfaces reflect the incoming light in all directions, so that the load-bearing function of the supports is dissolved in reflections and light²⁹. It is these

08 Robbrecht en Daem *architecten*, Mies 1:1 The Golf Club Project, Krefeld, Germany, 2013. Perspective



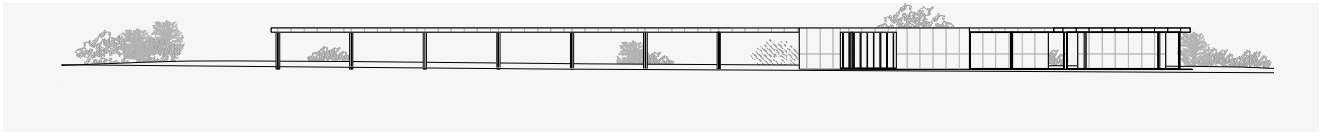
09 Robbrecht en Daem *architecten*, Mies 1:1 The Golf Club Project, Krefeld, Germany, 2013. © Maarten Vanden Abeele, 2013.



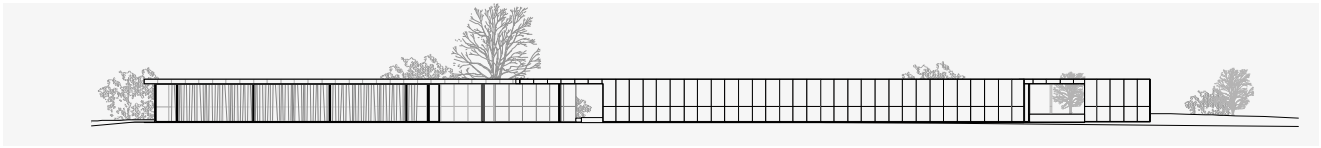
1. Steel column clad in polished stainless steel.
2. Maritime pine plywood panels.
3. Timber stud wall.
4. Steel IPE beam.
5. Wood joists.
6. Maritime plywood panels (whitewashed)
7. 1 x 1 m concrete tiles.



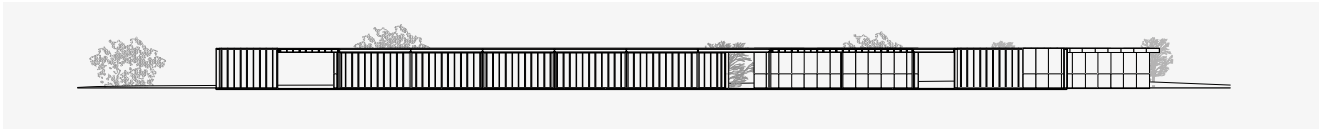
10 Robbrecht en Daem *architecten*, Mies 1:1 The Golf Club Project, Krefeld, Germany. © Thomas Hick, 2013.



11 Robbrecht en Daem *architecten*, Mies 1:1 The Golf Club Project, Krefeld, Germany, 2013. North elevation.



12 Robbrecht en Daem *architecten*, Mies 1:1 The Golf Club Project, Krefeld, Germany, 2013. West elevation.



13 Robbrecht en Daem *architecten*, Mies 1:1 The Golf Club Project, Krefeld, Germany, 2013. Section BB.



which allow the final completion of the atmosphere of lightness that Mies van der Rohe hints at in his drawings; they act as a signet, referring to their originator. So it can be said that the general impression of the construction, despite the simplicity of the materials, is one of elegance, radiating a compelling air of tranquility.

Robbrecht en Daem meet Mies van der Rohe

Just as Mies van der Rohe clearly formulated his idea of space with a few well-placed lines, Robbrecht en Daem *architecten* translated this idea with the same degree of precision in minimalist forms and material language to an ephemeral *objet d'architecture* of the present. Similarly to Mies van der Rohe, the central consideration for them is not the exterior appearance of his planned architecture, but his architectural concept. They describe the process of approaching and implementing it as a development “from the impossible replica to the possible model of Mies’s design”³⁰. It is not empathy and speculation that mark their method of dealing with the available sources, but constructive distance. Mies van der Rohe would probably have referred to such an attitude as “service” rather than “self-revelation”³¹. The point of departure for the architects was not the prospect of completing Mies van der Rohe’s design, but extrapolating “in his spirit” the missing information from other projects in order to provide a more detailed picture. The point of orientation for the decisions involving the transposition of Mies van der Rohe’s design to a 1:1 model was rather the architectural idea: whether and how to use which materials, and to which extent Mies van der Rohe’s instructions should be formulated in the sense of an architectural model, not that of a functioning building.

The implementation of Mies van der Rohe’s design to a 1:1 model opened a space between architectural idea and architectural construction; a space in which the freedom of the drawing could fuse with the strength of the physical

presence. Only within this space was it possible to achieve a state of suspension between the abstract and the physical as possible experiences. The 1:1 model suspends a moment of transition on the way to completion – as in the raw shell or the disintegration to a ruin – in which “architectural beauty lies exposed before us”³². “It depends on how long you remain suspended”, said Thomas Schütte, referring to the fragile process of the transition from a conceptualized piece of architecture to a constructed one. With this, he was referring in practical terms quite simply to the confrontation of an architectural concept with control of the implementation³³.

It was not necessary “to land” in order to elaborate on the image provided by Schütte. The form of the model made it possible to exhibit Mies van der Rohe’s architecture in distilled form, rather than to let it perform as a kind of costume. “Only skyscrapers which are still being built reveal bold, constructive thoughts”, said Mies van der Rohe in 1922, referring to the design of his glass skyscraper in Berlin³⁴.

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- Notes**
- 1 Translated from the German by Joseph Given. *Robbrecht en Daem architecten* is an architectural firm based in Ghent, Belgium, and founded by Paul Robbrecht and Hilde Daem. The firm work has been published internationally, was subject of several monographic publications and in 2013, received the *European Union Prize for Contemporary Architecture/Mies van der Rohe Award* for the City Pavilion project in Ghent (2012), together with Marie-José Van Hee architecten. Paul Robbrecht has been lecturer at the HSLI Ghent (since 1992) and at the AA School London (1997-1998) and guest professor in the Department of Architecture and Urban Planning at the University of Ghent (since 2009). Since 2005, he is member of the Royal Flemish Academy of Belgium for Science and the Arts and, since 2010, International Fellow of Royal Academy of British Architecture (RIBA, London). Hilde Daem was chairman of the *Welstandscommissie* City of Antwerp (2000-2007). Since 2000, she is member of the *MuHKA* Antwerp board of directors, and since 2010, member of the Concert Hall Bruges board of directors and International Fellow of Royal Academy of British Architecture (RIBA, London). In 2012, she was invited jury member of the RIBA Stirling Award 2012 and jury member of the *Biennale d'Architecture de Wallonie*.
 - 2 *Mies 1:1. Ludwig Mies van der Rohe. The Golf Club Project*, Krefeld, Egelsberg, Germany, May–November 2013. Curator: Christiane Lange, operator: *Projekt MIK e.V.* (www.projektmik.com), artistic director: Robbrecht en Daem architecten (www.robbrechtendaem.com), project management: DGM Architekten (www.dgmarchitekten.de), construction management: Andreas Ruhnau (www.ruhnau-architekt.de).
 - 3 Alexander Schwarz, "It's About the Place", in Christiane Lange, Robbrecht En Daem, *Mies 1:1 Das Golfclub Projekt*, Cologne, Verlag der Buchhandlung König, 2014, 195.
 - 4 *Projekt MIK e.V., Press review Mies 1:1*, 2014.
 - 5 See Christiane Lange, *Ludwig Mies van der Rohe. Architektur für die Seidenindustrie*, Berlin, Nicolai Verlag, 2011.
 - 6 Apart from Mies van der Rohe, Lilly Reich, Georg Muche und Johannes Itten, Krefeld could account for the presence of over 20 members of the Bauhaus movement since 1923. There they were active in training, industry and as architects. Their work will be the subject of the next exhibition project from *Projekt MIK e.V.*, on the occasion of the centenary anniversary of the founding of the Bauhaus in 2019: map 2019 Bauhaus-Network-Industry.
 - 7 Christiane Lange, Robbrecht en Daem, *Mies 1:1 Das Golfclub Projekt*, Cologne, Verlag der Buchhandlung König, 2014, 102-115.
 - 8 Rem Koolhaas, "The House that Made Mies", in O.M.A., KOOLHAAS, Rem, MAUREN, Bruce *S,M,L,XL*, Rotterdam, 010 Publishers, 1995, 63.
 - 9 Eva Rovers, *Sammeln für die Ewigkeit. Helene Kröller-Müller: die Bedeutendste van Gogh-Sammlerin der Welt*, Oberhausen, Athena-Verlag, 2016, 177-184.
 - 10 Werner Buch, *A Conversation with Ines Dresel*, Chicago Oral History Project, 1990, 7.
 - 11 See Ute Hassler, Winfried Nerdinger, *Das Prinzip Rekonstruktion. Tagungsband*, Zürich, vdf Hochschulverlag, 2010.
 - 12 Hanno Rauterberg, *Jetzt ist Früher heute, Die Zeit n. 4/2012* from 19.01.2012, accessed on 20.03.2017.
 - 13 Christiane Lange, *Mies & Reich. Furniture and Interiors*, Osterfildern, Hatje Cantz, 2007.
 - 14 See Dietrich Neumann, *Coming to Terms with the Past. Mies and Reconstruction*, Heerlen, Schunk*, 2016, 30-40.
 - 15 Ute Hassler, Winfried Nerdinger, *op. cit.*, 26.
 - 16 Winfried Speitkamp, *Architectural Monument, Cultural Heritage, and the Construction of Memory*, in Christiane Lange, Robbrecht En Daem, *Mies 1:1 Das Golfclub Projekt*, Cologne, Verlag der Buchhandlung König, 2014, 180.
 - 17 See Christiane Lange, *Ludwig Mies van der Rohe. Architektur für die Seidenindustrie, op. cit.*, and Christiane Lange, Helge Drafz, *Mies in Krefeld*, 2011 [documentary film].
 - 18 Paul Robbrecht, interview, in Helge Drafz, *Die Geschichte eines begehbaren Architekturmodells*, 2014 [documentary film].
 - 19 Christiane Lange, Robbrecht En Daem, *Mies 1:1 Das Golfclub Projekt*, Cologne, Verlag der Buchhandlung König, 2014.
 - 20 *Id.*
 - 21 Leopold De Wael Square, Antwerp, Belgium, 1997-2001 with Cristina Iglesias and Ann Demeulemeester; Rubens Square Knokke, Belgium, 2004, with Franz West; Exhibition-Pavillion Dokumenta, Kassel, Germany, 1992; Het Huis, Middelheim Museum, Antwerp, Belgium, 2012.
 - 22 Boijmans van Beuningen, Rotterdam, The Netherlands, 2003; Whitechapel Gallery, London, UK, 2009; De Boekentoren, Henry van de Velde, University Library, Ghent, Belgium, since 2007; Market Hall & Central Squares, Ghent, Belgium, 2012; Archives de Bordeaux Métropole, France 2015.
 - 23 Christiane Lange, Robbrecht En Daem, *op. cit.*
 - 24 Mies van der Rohe, *Late German Projects*, New York, The Museum of Modern Art, The Ludwig Mies van der Rohe Archive.
 - 25 Ludwig Mies van der Rohe, commentary on "Projekt einer Klubhausanlage für den Krefelder Golf-Klub e.V.", in The Ludwig Mies van der Rohe Archive; *Late German Projects*, Museum of Modern Art, New York.
 - 26 Christian Norberg-Schulze, "Ein Gespräch mit Mies van der Rohe", *Baukunst und Werkform*, year 11, mag. 11, 1958, 615.
 - 27 *Id.*, 194.
 - 28 Christiane Lange, Robbrecht En Daem, *op. cit.*
 - 29 The only element of the model which is made of textile is a white curtain on the west side of the building. This was a technically necessary addition, in order to provide protection to some areas from wind and sunlight during events.
 - 30 "Impossible to a possible model of Mies's design", press release on Mies 1:1 by Robbrecht en Daem architecten, June 2013.
 - 31 "Not only self-revelation, but also service!" This was what Mies van der Rohe demanded of architects. Mies van der Rohe. Entry in notebook, undated, New York, The Museum of Modern Art, The Ludwig Mies van der Rohe Archive, Folder I, quoted from Fritz Neumeyer, *Mies van der Rohe. Das kunstlose Wort. Gedanken zur Baukunst*, München, Siedler, 1986, 88.
 - 32 Alexander Schwarz, *op. cit.*, 196.
 - 33 Thomas Schütte, Conversation with Julian Heynen, 15 October 2013, Krefeld.
 - 34 MIES VAN DER ROHE, "Hochhäuser", *Frühlicht*, vol. 1, mag. 4, 1922, 122.
- Christiane Lange**
- Art historian, member of the research group *Catalogue Raisonné of Furniture by Ludwig Mies van der Rohe*, and chairwoman of *Projekt MIK e.V.*. Since 2007, she is involved in research, exhibitions, publications and movies on the European oeuvre of Mies van der Rohe, Lilly Reich and Bernhard Pfau. In 2013, she initiated and hosted the exhibition *MIES 1:1 The Golf Club Project* in Krefeld, Germany, together with the Ghent-based architects Robbrecht en Daem architecten. At the moment, she is making preparations for the exhibition *Map 2019 Bauhaus-Network-Industry (Bauhaus Network Industry)* (Krefeld, 2019).