



Delft University of Technology

Rietveld Pavilion De Zonnehof

a design project of the Department for Heritage and Architecture, TU Delft MSc1
AR1AH010 Fall 2020/21

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Rietveld Pavilion De Zonnehof



Colophon

This is an exhibition brochure by the students of the Heritage and Architecture Design Studio: Research and Architectural Design for the course MSc1 AR1AH010 Fall 2020/21.

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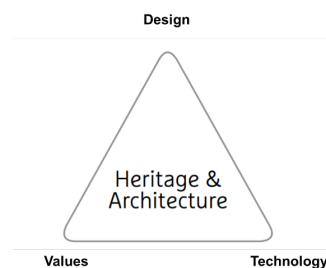
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CHAPTER I

INTRODUCTION

This booklet presents the work of fourth-year students from Delft University of Technology, Faculty of Architecture and the Built Environment, Chair of Heritage & Architecture, Section Heritage & Architecture. What you see is the result of one semester's work (20 weeks) to study together the conservation and redesign of De Zonnehof in Amersfoort. The international group of students worked all on the architectural relation to de Zonnehof, on different ways to exhibit, on climate control and on sustainability. In the exhibition you see the models, and, in this booklet, a summary of the projects is presented.

The section Heritage & Architecture (HA) at the Faculty of Architecture and the Built Environment of TU Delft focuses on the design challenges related to heritage conservation. Since 2015, the three chairs within the section of HA are structured in a triangular framework defined by their distinctive yet complementary knowledge domains: Values + Technology + Design.



“Heritage & Design is a dynamic and innovative field of architecture that deals with the architectural re-interpretation, adaptive re-use and restoration of historic buildings. In this professional field the starting point for design is not just a functional brief and a blank sheet of paper but the challenge of an existing spatial setting and cultural-historical context.” states Prof. Wessel de Jonge (Interview B-Nieuws, nr 06, 2015-2016)

H&D keeps on developing and academically positioning the innovative approach of ‘design with heritage’ as a leading method and the ‘transformation framework’ as a concrete tool for architectural design with a historic, social and ethical base balancing between continuity and change. Heritage & Design ties strongly to the architectural design practice as well as to the realm of project development and a wide range of governmental bodies.

The assignment was to create the Design, Architecture and Interior Design Museum (DAI Museum) and to redesign the relation with the context. For this the surface of the exhibition area had to be doubled and the Zonnehof, at least partly, had to be adapted to current requirements. The challenge of the assignment was to deal with an example of 50s modernist architecture designed by the Dutch architect Gerrit Rietveld and to create a new relationship with its urban context. The assignment formulated aimed to be realistic and topical for the Zonnehof, for the students it is purely hypothetical and only conceived as a design exercise. De Zonnehof, where every detail contributes to the quality of the whole is a challenging task. The tutors discussed with the students, based on their designs, what the boundary is between what you can or must change and what should be preserved. By discussing we challenge the students to formulate their own point of view and then explore the consequences of that point of view in the design. The result is not always a valuable design, but is always a valuable research.

Although all students made integral designs while discussing the student work we found four main themes in the student work. The exhibition and this booklet is organised around those themes:

- The design themes of Rietveld
- Social and contextual
- To exhibit
- Sustainability

Lidy Meijers
Wouter Willers

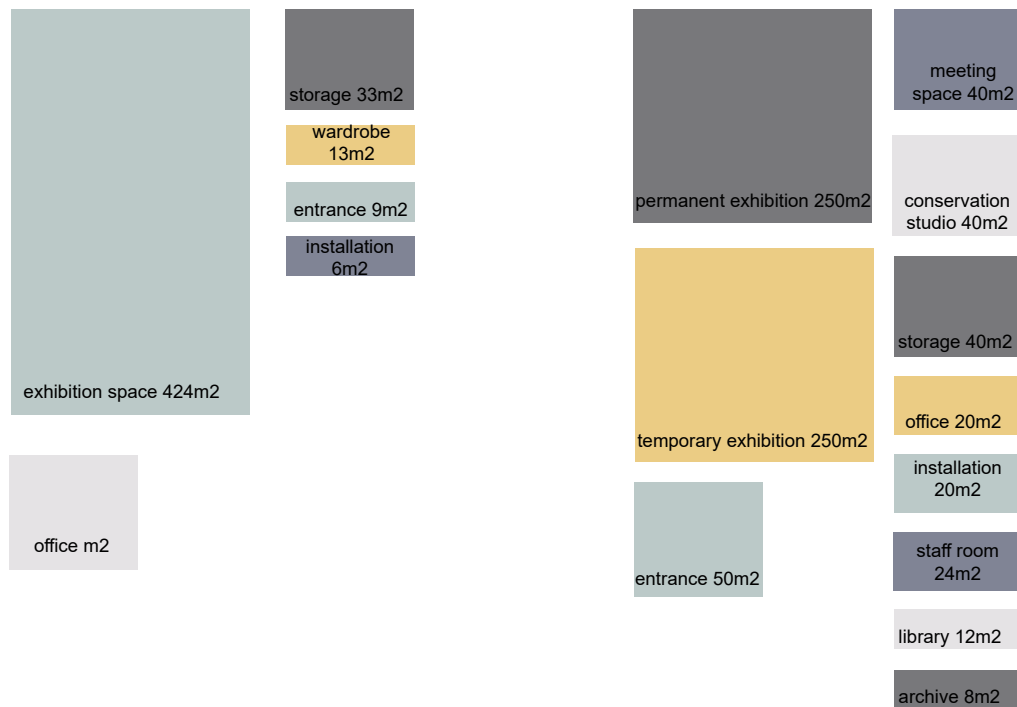


Image: © Rietveld Schröderarchief - Centraal Museum, Utrecht / Pictoright, Amsterdam

The design process started with a contextual and building analysis of the existing structures. It provided answers and input for the design assignment. Buildings have a physical, historical, cultural, or financial context inextricably linked to its current state of design or design process. For example, the location of a building, the wider urban context, can be related to the amount of people that pass by. The direct context of a building can influence its perception by visitors. So, a building will be perceived differently in a densely built area compared to a more spacious and green park. Also, these contextual conditions might change. Therefore, research to planned future developments, such as urban master plans by a municipality, can be useful.

When it comes to conservation and redevelopment of heritage, one has to deal with the clear context that is provided by the building itself. The history of a building, its cultural significance and its architecture are analysed, so they can be taken into consideration or can be used as a motive in the further design process. The analysis of a heritage site can consist of different stages, as mentioned by Kuipers & de Jonge in their book *Designing from Heritage* (2017). First, the collection of data regarding the construction and evolution of

the site. Archived materials, such as historical maps, drawings and photographs can be used for this. After gathering the information, important attributes of the building can be distinguished and classified. These different features, such as the structure of the building, the materials used or the architecture itself, will be interpreted and qualified systematically. By valuing the building's features as 'high', 'low' or 'medium', a clear overview can be created that will be useful to make decisions regarding possible interventions.



De Zonnehof

Heritage & Architecture

Heritage & Architecture is concerned with the discussion in architecture and construction between preservation and renewal. The transformation and conservation of existing architecture is important given its economic, social and cultural relevance. For the contemporary question in architecture the awareness of an appropriate balance between the old and the new in creating and developing new ideas is a fundamental concern.

Heritage & Architecture students learn to recognize the architectural and cultural values of existing buildings in the context of their surroundings. They learn to establish preconditions for re-use and to produce designs for transformation that respond to aesthetic, technical and functional demands.

Architecture assignment

The new function for 'De Zonnehof' in the assignment stays close to the original function; a Design, Architecture and Interior museum (DAI). The museum will have its own collection with items from the period 1900-1999. There will be exhibitions with borrowed modern items next to the exhibitions of their own collection. The overview of the design brief can be seen in the image above, and indicates that an extension of the building is

DAI

Image: Spatial program de Zonnehof and DAI

needed to include all the functions. At the same time the design of Rietveld needs to be upgraded to fulfill future demands concerning safety and sustainability. Beside the exhibitions the museum of DAI will organize lectures and workshops.

Building Engineering assignment

The main topic of the Building Engineering studio is the design of the technical aspects, in relation to the architectural aspects of the design. The main technical aspects are the structure, the construction and climate design, with sustainability as the general starting point. The aim of the process of integrating sustainable and technical features is to develop the initial architectural concept into an actual physical building design, in which the quality of the initial concept is reinforced and enriched through interaction with all relevant physical considerations.

The design process is divided in four phases of which the first phase includes the analysis of the building and context. The second phase consist of research and the development of a concept. This comes together in the preliminary design in the third phase. The last phase is the development of the final and detailed design.

CHAPTER II

DESIGNS

EXHIBITION

PART 1

**RIETVELD
DESIGN
THEMES**

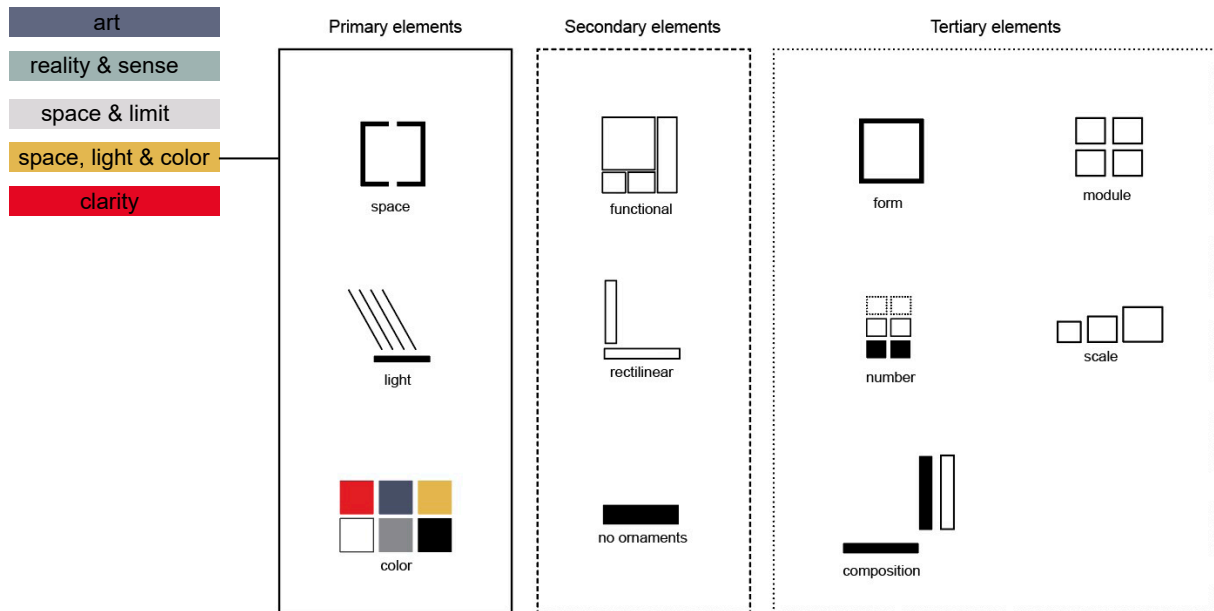


Image: Isabel van Leeuwen and Sophie Latour

Gerrit Rietveld (1888-1964) is closely linked to De Stijl, which was a loosely connected group of painters, sculptors and architects. Rietveld became famously known for De Stijl because of the red and blue chair and the Rietveld-Schröder house, even though he had closed this chapter of his life (van Strien, 2011). Later on in his architectural career, Rietveld continued and expanded on some of the themes of the De Stijl period. Through his published writings, work and lectures, themes emerged: art, reality and sense, space and limit, space, light and color and clarity. The identification of Rietveld's themes shows how they are all connected: art is interlinked with reality and sense and clarity is intertwined within space and limit. Rietveld aimed for clear architecture, which included sharply focused sensory experiences that have the ability to enhance life. He used elements: space, light and color, to illustrate a conscious awareness of reality. His buildings serve a purpose to ordinary life, where they are not political or overly opinionated buildings. De Zonnehof, Dutch Pavilion in Venice and Rietveld Pavilion, amongst others, are public buildings, which are said to be his most pure architecture. They focus on space and light where color is an aid and not a primary focus.

Within the design themes, Rietveld used elements: space, light and color. These elements can also be interpreted as detailed themes that made up his designs. Besides the elements of space, light and color - which are specifically outlined by Rietveld - function, rectilinear, no ornaments, form, composition, module, number and scale are elements inherently rooted in his work. Each hierarchy of elements, primary, secondary and tertiary, are intertwined within one another highlighting a crucial connection the elements have with his design themes, supporting his view on creating clear architecture.

Identifying the design themes and elements present in Rietveld's Architecture helps to define the values of De Zonnehof. These themes therefore reoccur in the value assessment and transformation framework that the students have used to consider and decide about changes and improvements to De Zonnehof.

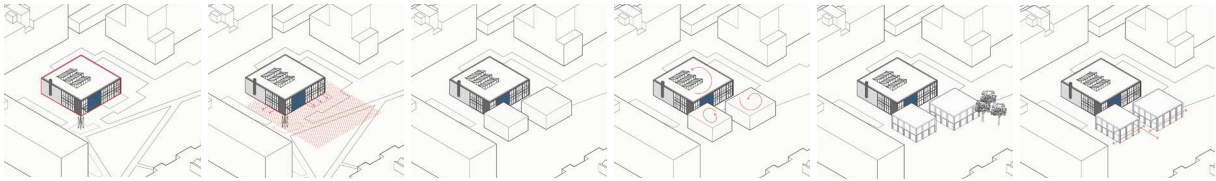


Image: Zonnehoftuin in 2021 en Zonnehoftuin in 2060, Isabel van Leeuwen

The studio Heritage is based on a conservation and redevelopment design project. Through analysis we have investigated the important elements of the building. The reason for me to choose this studio was to understand what was built, how and why, and what you build in relation to the existing. There are lots of buildings that aren't timeless, looking to the environmental qualities, the function or for aesthetic reasons. Dealing with heritage is also a task where we have to think about it very carefully. A choice often cannot be reversed. Next to that, a meaning of an architect is specific.

The Zonnehof is a unique building in Amersfoort. The design principles of Rietveld are clearly visible in the building he has designed. A heritage project asks for good investigations. The form of the Zonnehof is clear and looks like a cube. It makes the building strong in its language and it gives the building a sober character. The climate system was outdated and needed an upgrade to make the building suitable for different functions. I did not want to change the form of the building, but I was looking to the function of the existing building. To make the Zonnehof suitable for different kind of arts, it would have a lot of consequences for the existing design. Keeping that in mind, I decided to add two buildings in the park. The connection

between these buildings and the existing Zonnehof could be seen in the sober and clean details.

What I wrote before, I believe in the timelessness of a building. Thereby, I questioned myself 'What is the future of Museums?'. The Louvre in Paris made a special area to get an experience of the history behind the Mona Lisa by VR glasses. It is really interesting what technology could do. But do we need a place for that? In times of Covid19 people have travelled less. In this period, we have seen the advantages for the climate to organize more in your own environment. Climate change is really important on this debate. Is it in the future acceptable to move museum collections from country to country? If a museum will become more digitized, how can a building deal with this? The Zonnehoftuin consists of the original building and two added parts in the park. The routing by daylight is designed in the new buildings and inspired by the Zonnehof.

A building that fits into its ever-changing environment'. The structure of the added buildings is inspired by the trees and there is public space reserved to get a relation to the park. It is a temporary design.



The building is designed in such a way it can be adapted in the future. This is explained on the basis of the structure and the climate system. The assignment asked for a building that adapts to its environment, so for the park to fit in the context, but also for the Zonnehof which will function as the main building.

2021

I made two designs. The first is a building in 2021. The Zonnehof is the main entrance of the different pavilions. Visitors first enter this building to understand the thoughts of Rietveld and to understand the routing and to understand the design options in the added parts. The left pavilion is based for contemporary art. These facades can be opened up. The art in this pavilion is fine-tuned to the building. Sunlight is allowed and is part of the routing. The right pavilion is based for temporary art. This façade is made of translucent panels. The translucent material reduces direct sunlight whereby different art collections could be shown.

2060

What is the future of museums? We do not know. What we know is that in the future many collections will be digitized. In that case, the function of the new pavilions will change. In this design I made an optional design for 2060. Thereby, the pavilion for contemporary art is changed in a theatre and the pavilion of temporary art became an open and covered garden for the neighbourhood. The function will be the same for the Zonnehof. And by this reason, the Zonnehof will be timeless.



Image: Sophie Latour

The proposed, Museum of Architecture, Design and Interior (MADI) reinterprets Rietveld's most important principles in a modern way. Rietveld's themes and elements reoccur throughout the project, where the transformation framework helped determine the highest values of 'De Zonnehof'. A distinct hierarchy determined design decisions, where exceptions were made with good reasoning based on the concept or other. As a starting point, the tangible values worth keeping were the large glass openings, the interior brick wall materiality and the interior wall placements making the gallery space so distinct. Opportunities for alterations within the project are the reinterpretations of the human scale, the fluid motion of spaces and the limits of seeing.

(Architectural) Concept

Built upon Rietveld's ideas of buildings serving a purpose to ordinary life, the Museum of Architecture, Design and Interior (MADI) functions as more than a museum. It is rooted in its context with large canopies enticing users to occupy outside space. Unique to it is the treasure that hides inside the building, 'De Zonnehof', designed by Gerrit Rietveld. De Zonnehof becomes the exhibition piece as it feels each alteration takes away from the pavilion. The wrapping of the

pavilion gives users a unique opportunity to touch the pavilion, something that is not allowed in usual circumstances. This strengthens the conversation of the pavilion as an object to be viewed from afar, but is also a building, to be touched. An attempt to close the distance between the pavilion and the extension. It is therefore, simultaneously, an intrinsic and extrinsic building. MADI is a place for the gathering of the arts, forming a creative hub for the community. It provides spaces with a low or no barrier entry to the building generating an inclusive building for many activities. It is a museum of the future.

Spatial Arrangement

The MADI has extra spaces for an atelier for children and adults to learn the arts, quiet space to study or for informal group interactions and meeting spaces. The collaborative set of functions are easily accessible and clear to find, similar to 'De Zonnehof' layout. Routes through the buildings are suggested, where primary and secondary junctions appear, which is then guided by windows and walls stand perpendicular to it. This is a juxtaposition to Rietveld's design concept of being guided by walls and then redirected to light. The inverse relationship highlights the extension as a separate entity where the pavilion stands on

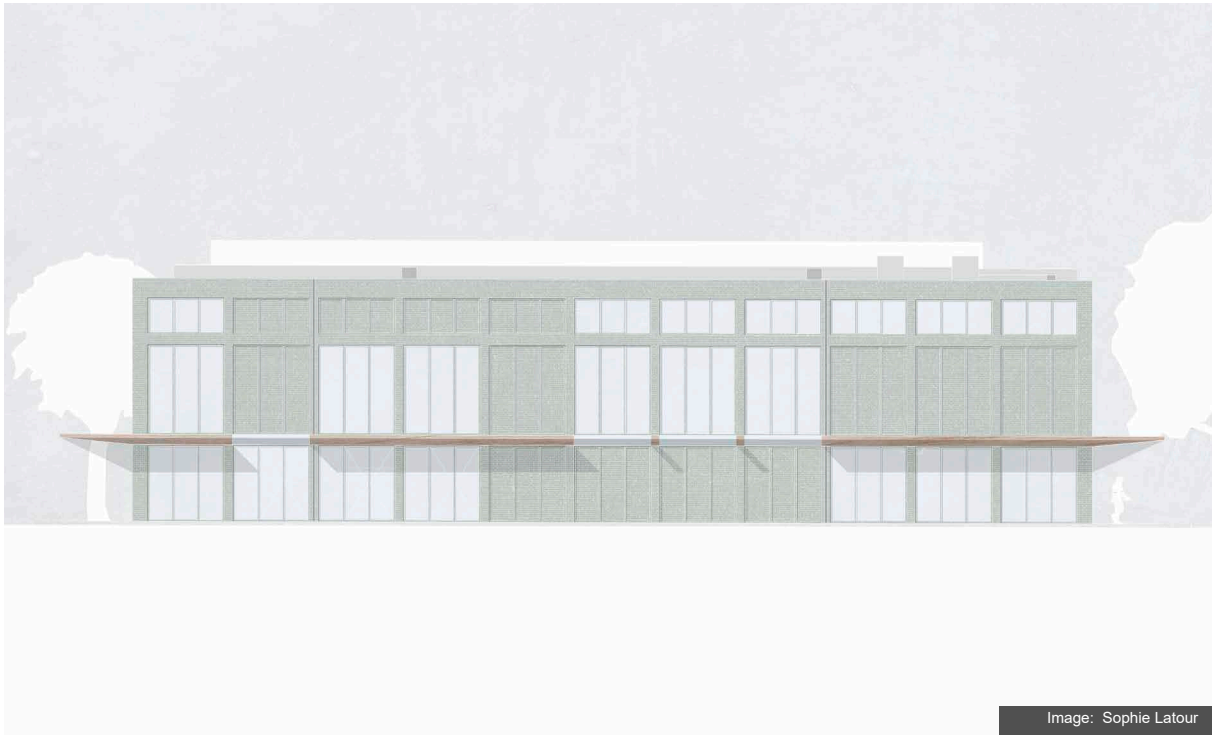


Image: Sophie Latour

its own. This is the key decision maker where, in the extension, there is always a connection to the exterior.

Together with the extension, the building uses the core house idea as the extra functions are wrapped around the exhibition spaces. This wrapping, also creates a gathering space that connects all functions, forming an intimate buffer zone between existing and new. The programmatic breakdown identifies the choice to experience the pavilion on all sides. Here the building is and feels like a public and social building as there is always a connection to the pavilion, explicit or not.

In the extension, a timber structure is chosen as a modern reinterpretation of the most modern construction material, as Rietveld did with steel at the time. The different materiality is combined with the new structure that follows the existing grid, where the recognizability of the original pavilion does not disappear. The vertical grid, however, is shifted upwards, creating a smaller buffer which allows for exceptions, relieving the complexity of attaching to the pavilion.

Facade

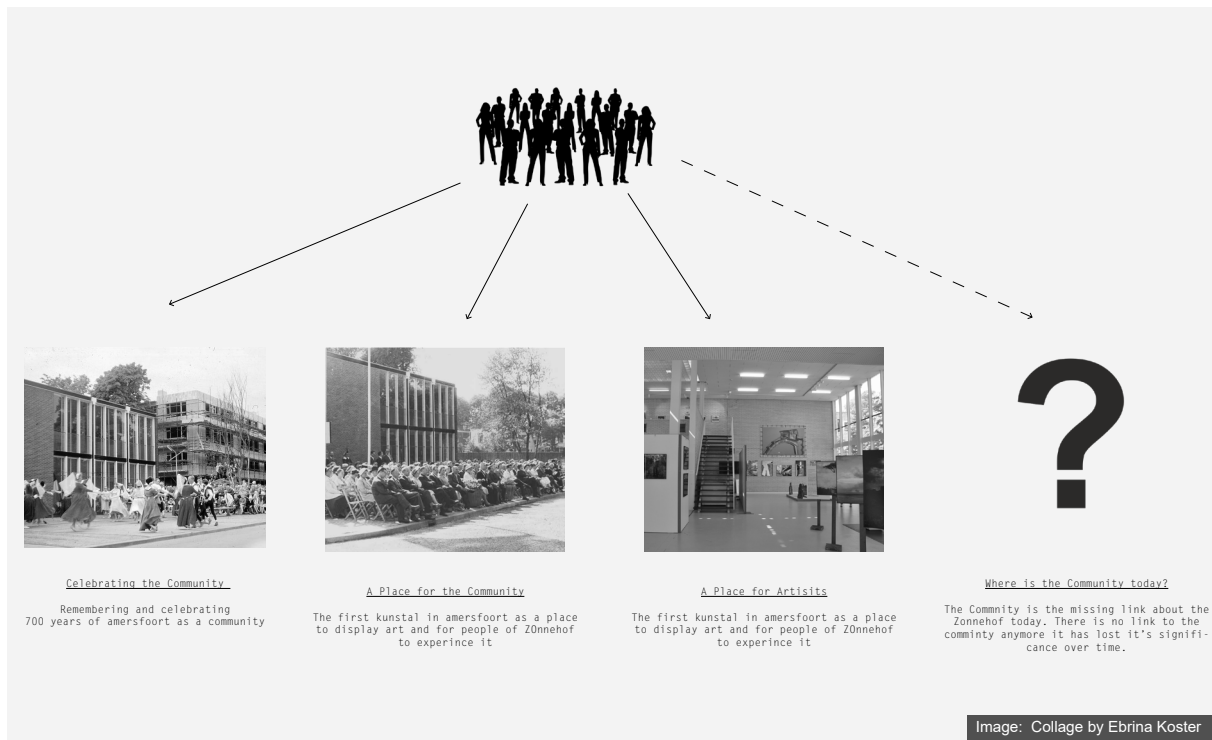
The MADI façade protrudes into the park through a glass and timber canopy. Simultaneously inviting the user to appropriate the outdoor space

and creates an enticing entrance to MADI. As the extension covers the majority of the existing pavilion, the recognizability is reinterpreted in a modern way by using recycled glazed bricks. Ensuring the extension is not detached from the pavilion, the proportions stem from 'De Zonnehof' where a hierarchy of components is present. This creates a clear distinction between body and entrance, enticing the user in. The MADI facade illustrates a renewed inclusivity of all bodies as the depth of the bricks highlight the verticality of the building, creating a playful facade.

The distinct glass, brick ratio, plays with solid and void as expression of internal functions. Glass aims to reflect the park during the day and in the evening the windows dissolve where the pavilion and extension is illuminated. This is an interpretation of Rietveld's philosophy where the building is a literal 'reflection' of daily life. The brick covers the façade where the all sidedness of the pavilion is retained, emulating a building that 'are not political or overly opinionated buildings' (Rietveld). The muted green facade stems from 'De Zonnehofs' interior colors being displayed on the exterior. The building thus creates a neutral backdrop for activities, this term 'neutral' mentioned by Rietveld as to not take away from the art.

PART 2

**CONTEXTUAL
AND SOCIAL**



Culture Center and Park

Historically the Zonnehof has always held a strong place within the community. The Zonnehof sits just outside the old city centre, which was once at the heart of the city.

In 1959 as the city prepared to celebrate its 700th anniversary, Mayor Hermen Molendijk saw the opportunity to transform this spot in the park into a community space. He, therefore, commissioned Gerrit Rietveld to design a museum in order for the community to celebrate art and culture. The Zonnehof, once opened, became the first Kunsthal in Amersfoort and for over 50 years has been used to display art from local and small artists as a way to celebrate the craft.

The Zonnehof as a Cultural Center, therefore, is a strong intangible property of the Zonnehof as should be valued highly. Sadly, today the link between the Zonnehof and the community is weak because the original connection has been lost as Amersfoort has expanded. The Zonnehof is now hardly visible to the average walker nestled behind a range of tall office buildings on the way to the city centre.

The original Museum was designed not only to enforce a strong community bond but also with a strong link to the surrounding park. The museum used to stand proudly on a plinth in the centre of the park holding its own identity within with beautiful scenery. Rietveld saw the museum and the park as one entity. Today the park has been redesigned with focus given to the community and the surrounding neighbours however the role of the Zonnehof within this park is very limited.

As students, many of us looked at how we could reinstate the Zonnehof's role as a cultural and community centre and give it back its proud identity within the park as in Rietveld's original plans.



General Approach

Rietveld's aims were for clear architecture that includes a sharply focused sensory experience that can enhance life. He uses elements: space, light and colour to illustrate conscious awareness of reality. I intended to ensure that my design is deeply rooted in Rietveld's Principles and techniques to create a lively and inclusive environment in and around the Zonnehof.

Furthermore, the Zonnehof has always had a strong link with the community, which is currently not visible today. Therefore, my proposal aims to reinstate this link creating an ensemble of buildings, each using Rietveld's grid and proportion. Having a range of buildings allowed me to play around with their position, proportion and size and create a more unifying link between the existing park and the museum. The concept was deeply rooted in spreading the program through the park with the logic of pavilions allowing minimal impact on the Zonnehof and the park.

The design itself is focused on a self-build culture and an attitude that will permeate beyond the buildings. Where the park and the pavilions grow with the users as their needs require. With the addition of a community centre

located near the existing shops, the Zonnehof and the park will house various scales. This will allow the personal businesses to combine with individual hobbies, groups meetings, and meals so neighbours can come together. The flexibility of the new pavilions will allow them to host small events and host more significant public events where the Zonnehof becomes a destination for visitors from all over Amersfoort. The nature and scope of these activities are unknown and will be formed by the needs and ambitions of new and old neighbours through conversation, organisations and action. The inhabitation of the building will reflect this responsive culture, with the structure being filled out over time. The self-build culture does not disappear once the building is active. The Zonnehof will become a site of production, creating projects for the surrounding neighbourhood that are useful, sensitive and beautiful.

Furthermore, adding a community centre to the program created a new entrance to the park. Therefore, the use of red and the cubic shape for this became poignant as it specifically links to Rietveld's use of the red square in the existing Zonnehof.



Image: Ebrina Koster

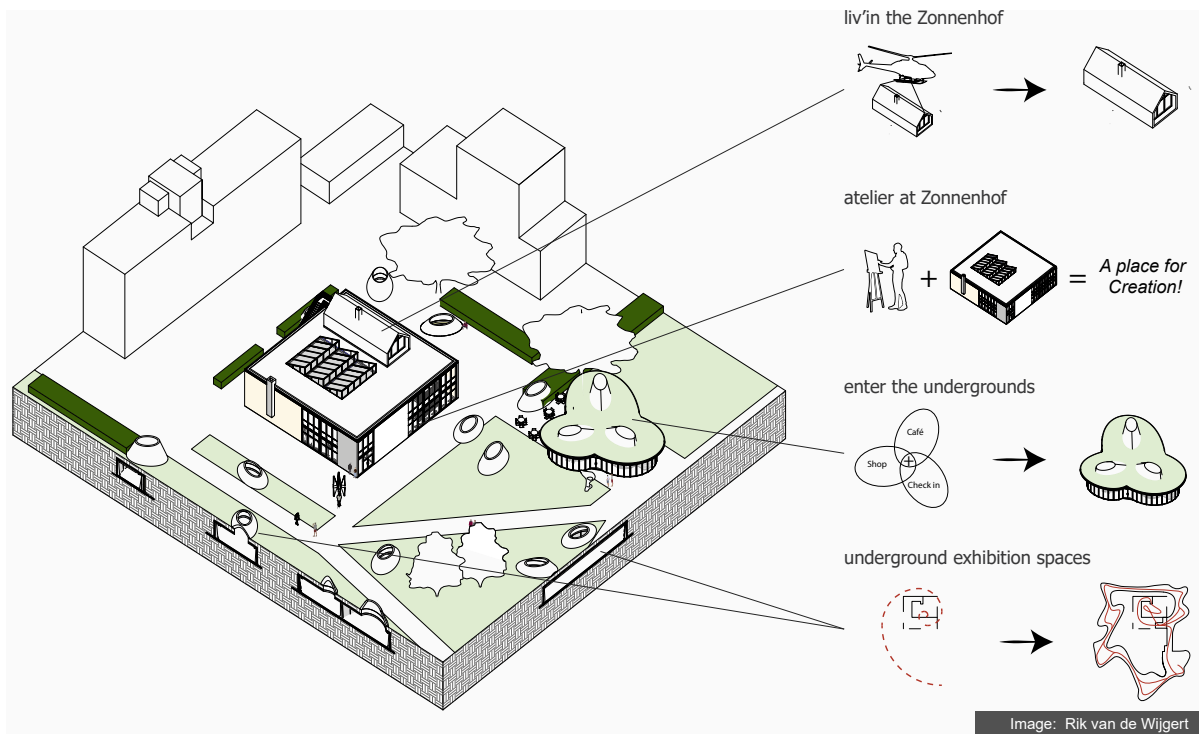
In order to create this desired environment, I studied which spaces could be connected and which could be separated before massing the volumes on site. The idea of various rooms and spaces within the Zonnehof is extended outside the walls of the building and into the park, further binding their relationship. The pavement creates a range of different 'rooms' in the park, all based on different formations of the 3m grid, creating other spaces for different users and activities to use the park.

The design binds the museum with the landscape around it, in a similar way to the rich interplay between an English country house and its surrounding gardens. This idea of expanding the museum into the park plays with Rietveld's idea of endless space. It is blurring the lines between indoors and outdoors. The surrounding garden is also designed as a place to experience art. The garden is not laid out like an enclosed city park but instead is arranged with open lines of trees and spaces extending outward from the museum. The feeling of the gardens should encourage the public to experience the park and the museum as one. The gardens are a place for community sculptures and pavilions to be displayed and where visitors can have coffee and even attend events. This creates a place of celebration

which was initially intended for the pavilion.

Finally, the material was also of huge importance to the design as it was used to express human scale and proportion. In addition, through my value assessment, I gathered that the material should be cheap, sustainable. It should be able to be read, and both urban and human scale as well as have tactile and light reflective qualities. Therefore, I aimed to use cheap and functional materials common and readily available in today's society as a contemporary take on Rietveld's principles. The material which met all of these factors was metal and specifically corrugated metal. Here you are able to understand the external relationship between the old and the new pavilions. The playful and reflective, and high gloss materiality allowed for a contemporary take on the traditional brick and juxtaposed the Zonnehof in a subtle unassuming manner.

Overall, the aim of this project was to create a new museum with added facilities which binds the new park with the Zonnehof making it a greener and more usable park scape which is more friendly and appreciable to the community and the wider population .



Imagine...

...You arrive at the **Zonnehof park** entering from the south from the city centre or perhaps arriving from the north coming from the station area. In the park you are welcomed by the monument you were looking for: the beautifully detailed exhibition hall designed by Rietveld in 1959. But some things have changed since last time...

In the park you notice **concrete pits**, scattered around the pavilion, each of them unique but also similar to each other. You may not know their purpose yet but they seem already to be a playful *addition* to the park. You also notice something else, something surprising... "Is that a **house**?" You say when pointing to the roof of the **Zonnehof**. A small house was seemingly dropped by a helicopter on top of the pavilion. Well... You now decide to enter the small free shaped pavilion that was added in the middle of the park and you enter the underground following the new exhibition route. The spaces **underground** are *irrational* and there is little natural light. These are good conditions for the exhibition of fragile art pieces but it contrasts strongly with the **Zonnehof** pavilion bathed in light and built on grid! The only natural light source are the **light pits** in the ceiling. Now you know what purpose the concrete pits have! A bit disoriented by the swirling route

of the underground exhibition you enter the original **Zonnehof** through a staircase. Overall the **Zonnehof** is still in it's original state. You penetrate the central area of the pavilion and you see an enthusiastic **artist** working on his last piece! He tells you that he is starting his creative career in Amersfoort with the support of the municipality. He is living in the **house** on top of the pavilion. He can use the pavilion as his atelier for a given period while also being able to use the exterior or interior space as his exhibition space.

Manifesto

How beautiful would it be? The **Zonnehof** is not simply a place to exhibit, it is a place to create! Following the QR code bellow you will be redirected to the Manifesto I have written in the beginning of the project. Have a look!





An assembly of Architectures

As the 3D view above shows, the extended *Zonnehof* is designed as an assembly of elements and architectures: The house, the pits, the second pavilion and the underground space. Still, they have things in common: they contrast with the actual *Zonnehof* by material and shape. The underground space is *dark* and organic, the house is designed to literally evoke the idea of a house, and the new interior partition of the *Zonnehof* are curtains, to contrast with the rigidity of the current pavilion.

In my opinion contrast could enable the emphasis

of some aspects we already appreciate in our monument by making them stand out even more. If you would enter the *Zonnehof* just when leaving a dark underground space you would be even more struck by the amount of light penetrating the pavilion!

The light pits on the other hand play a role of function and composition. While bringing in some diffuse natural light in the underground they give an emphasis to the pavilion above ground by gravitating around it. They also occupy the park space which becomes trough their sculptural shapes a sort of statue park.

PART 3

TO EXHIBIT



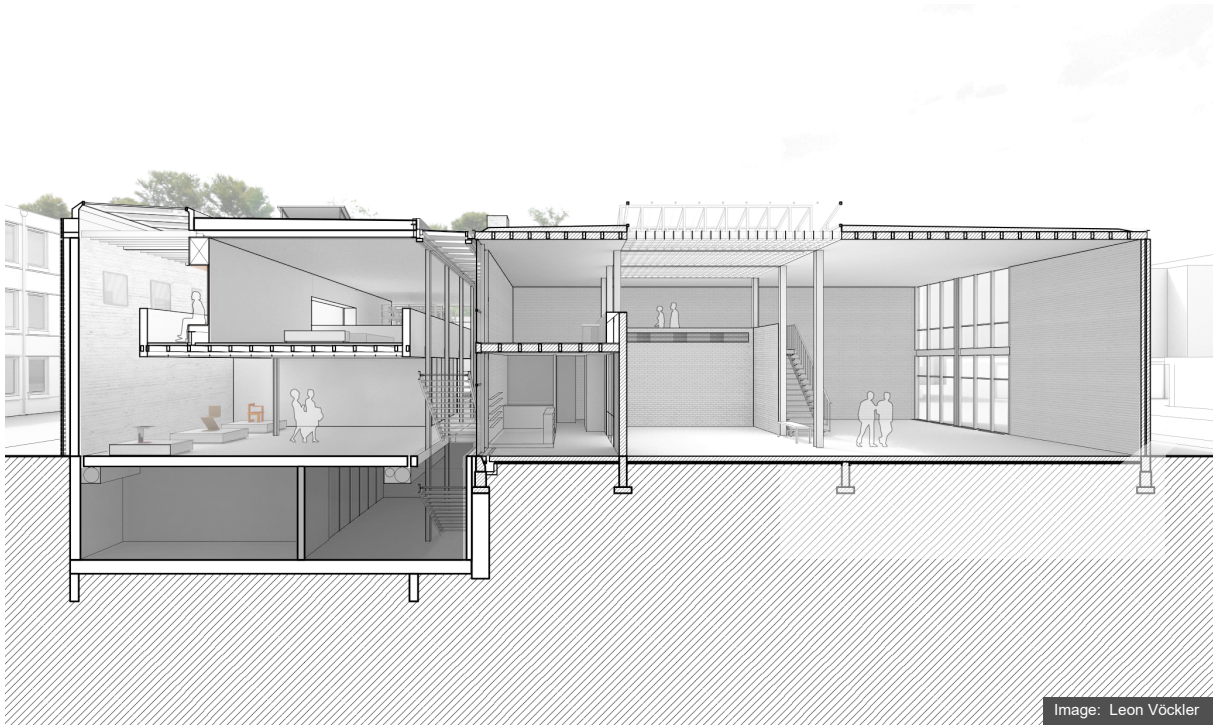
Image: © Rietveld Schröderarchief - Centraal Museum, Utrecht / Pictoright, Amsterdam

'What is the meaning of exhibiting?' Rietveld asks himself in his typescript 'Wat is de zin van tentoonstellen' (1958). 'The answer is not simple, because there are many types of exhibitions. Every shop window is already a type of exhibition; all kinds of items are displayed, in the smallest cigar shop window and in the largest car showroom. The purpose of this is very clear: the point is to draw the passersby attention to the existence, quality, price and in some cases also the application and charm of the item. [...] The exhibition of art is completely different; for art, the creation of a larger or smaller scale of limited spatiality, which wants to be nothing more than a background, is the best method. Placing the works of art in such a way that the work has the best opportunity to express itself is the enjoyable yet challenging task of the decorator. The fact that the background for sculpture has to meet other requirements than those for paintings or other art often leads to the space being kept completely neutral, so that a special purpose can be met with simple adjustments' (Rietveld, 1958).

The exhibition building the Zonnehof was built with this mindset.

In order to compose such spaces that leave the stage to the artwork, it is significant how Rietveld created an interplay between only a few boundaries and the use of light to create such exhibition architectures. According to the Kröller-Müller Museum, Rietveld wrote about his pavilion in Sonsbeek: "The empty space and light determine the value of the architecture in, around and between the boundaries, which are only there to define the space" (n.d.).

Both his pavilion for the Biennale in Venice and the Zonnehof pavilion consist of a mix of spaces, on the one hand enhanced by the large floor to ceiling windows, allowing for a strong relation to the exterior from the inside and on the other hand rather enclosed and diffusely lit spaces with an almost sublime appeal. In the Zonnehof pavilion, this central space is encompassed by precisely placed columns, sitting under the edges of the central skylight. Dutch architecture historian Pieter Singelenberg (n.d.) wrote in his article "Space, light and art" about both pavilions, "that [their] apparent simplicity [are] ideal for the purpose of exhibiting, because there is no rivalry between architecture and object. This made Rietveld an ideal designer for exhibition buildings."



General Approach

The central, conceptual goal for the extension is to reinterpret the most significant design aspects of the pavilion, such as the few walls to span up a variety of spaces and the light that floods and guides through them. With the creation of these new but still referential elements, the extension becomes its own piece of architecture, while remaining a visible connection to the existing built heritage.

Gerrit Rietveld's exhibition space in Amersfoort is surrounded by a composition of walls, strategically placed to form just enough barriers to allow the spaces to exist, while also giving them enough openings in between to seemingly let the interior spaces flow into the exterior.

Referring to this design strategy in the extension, a single wall is placed opposing the south-eastern facade of Rietveld's architecture, spanning up a new space between itself and the pavilion. Due to the increased length of the wall compared to the one of the pavilion, it is reaching further into the park, allowing space to also flow past the pavilion into the exterior.

This newly generated, two-story high space, gets divided vertically by a platform into ground and

first floor. While the visitors experience a relation between the pavilion's upper gallery and its ground floor through the central space under the skylight, the relation between ground floor and first floor in the extension is experienceable through the wide gaps around the seemingly floating platform, between itself and the outer shell of the building.

The space on the ground floor gets subdivided through the use of flexible walls, starting perpendicular to the main wall and ending with a respectable distance to the pavilion, still allowing a free sight at it and movement of the visitors around each wall to reach every exhibition space.

With an almost sublime atmosphere, the diffuse light inside Rietveld's square-shaped pavilion defines the central space, to which most spaces are spatially connected.

The elongated shape of the extension however required such a connecting source of natural light to be shaped differently. A single, long skylight is implemented, following the entire length of the main wall, shining down on the platform and through the gap between platform and main wall to also diffusely light the subdivided sections of the ground floor.

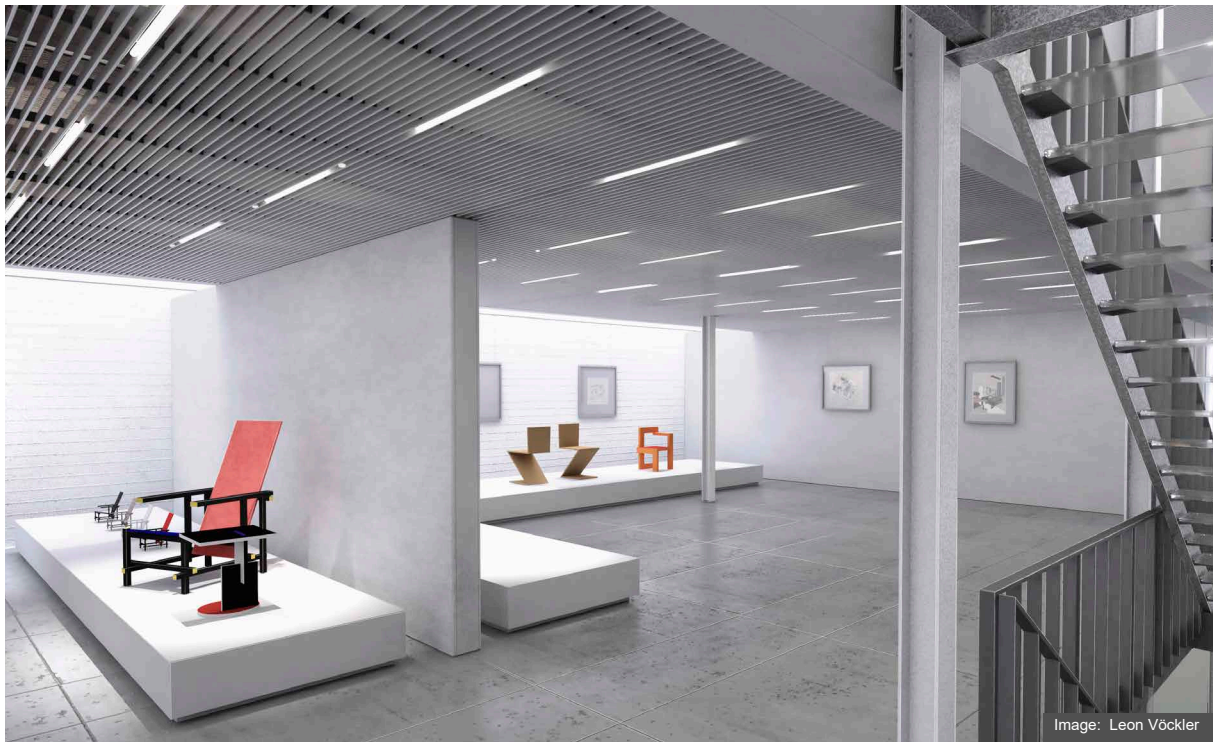


Image: Leon Vöckler

A requirement for more fragile artworks is the absence of direct sunlight. To cut the amount of spaces that are being affected by the direct sun shining through the skylight, a second wall was placed on the platform on the first floor, running parallel to the main wall. This second wall divides the upper space into two, leaving one big, diffusely lit exhibition space and a more narrow walkway, facing the main wall as a kind of balcony flooded by sunlight, from where rather flat artworks hanging on the main wall can be admired. Additionally, air conditioning pipes and vents as well as structural elements can be hidden inside this thick and hollow wall. This way, larger pipes are being held out of the platform itself, making it possible to reach similar floor thicknesses as Rietveld's very slender floor construction in the Zonnehof pavilion. This skylight that all other spaces in the extension are connected to, is intentionally not placed in direct line of sight from the existing pavilion to avoid a distraction from Rietveld's original space. While on the ground floor it is still possible to get a glimpse at the lighting in the extension when looking past the shop in the entrance area, the second wall on the first floor of the extension blocks a direct interaction of both diffuse light sources, requiring both to be experienced in a sequence, rather than at the same time.

After being connected to its new extension, the exhibition spaces in the existing pavilion are aimed at hosting exhibitions of contemporary design objects, while the new extension is supposed to showcase older and more fragile objects of the permanent collection in an improved, more controlled climate.

These two main exhibitions are accessible separately from the central entrance area in the pavilion and connected on the first floor to enable a continuous visit of both parts in one go. A staircase and an elevator are centrally located in between both buildings in a glass gap, acting as a neutral transition zone between both architectures.

In continuation of the variety of exhibition spaces Rietveld created in his pavilions, the extension is also meant to provide curators with a variety of flexible spaces, due to flexible walls in the ground floor and a double height area at the northern end of the extension, either usable for events or extra-tall pieces of the exhibition.

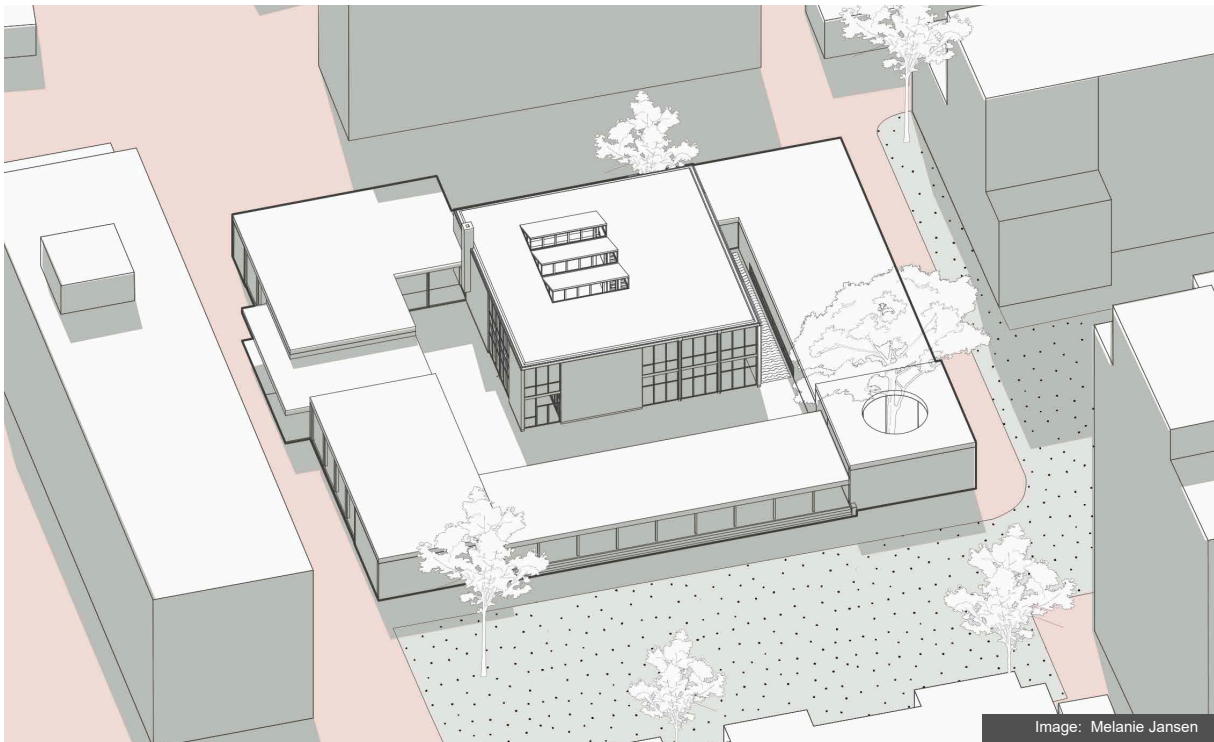


Image: Melanie Jansen

General Approach

By treating the Zonnehof building as part of the exhibition, a conservative approach was taken to preserve as much of Rietveld's building as possible. While being a piece of art in the museum, the Zonnehof itself is part of the route and used for exhibiting art too. The Zonnehof is surrounded by walkways, enclosing the building and making it the focus point. A modern gallery with large glass panes acts like a showcase to exhibit the Zonnehof.

While the visitor is walking the route, several tools are used to attract their attention and guide them through the museum. These tools are derived from Kevin Lynch' way of way-finding in urban planning. One of them, landmarks or monuments, is used in the project. A historical tree, originated from when the site was still part of a country estate, is placed

in a circular courtyard to create a monument on the route. Furthermore light and visual stimulation is used to guide the visitor.

A shallow pool of water in between the Zonnehof and the temporary exhibition hall, brings in diffused light but also creates visually interesting patterns of the water.

Not only has this an aesthetic and functional purpose, it also features a sustainable function. As the water warms up or cools down depending on the season, the warmth or cold is stored in a thermal energy storage underground. The warmth and cold can then be used to warm or cool the building.

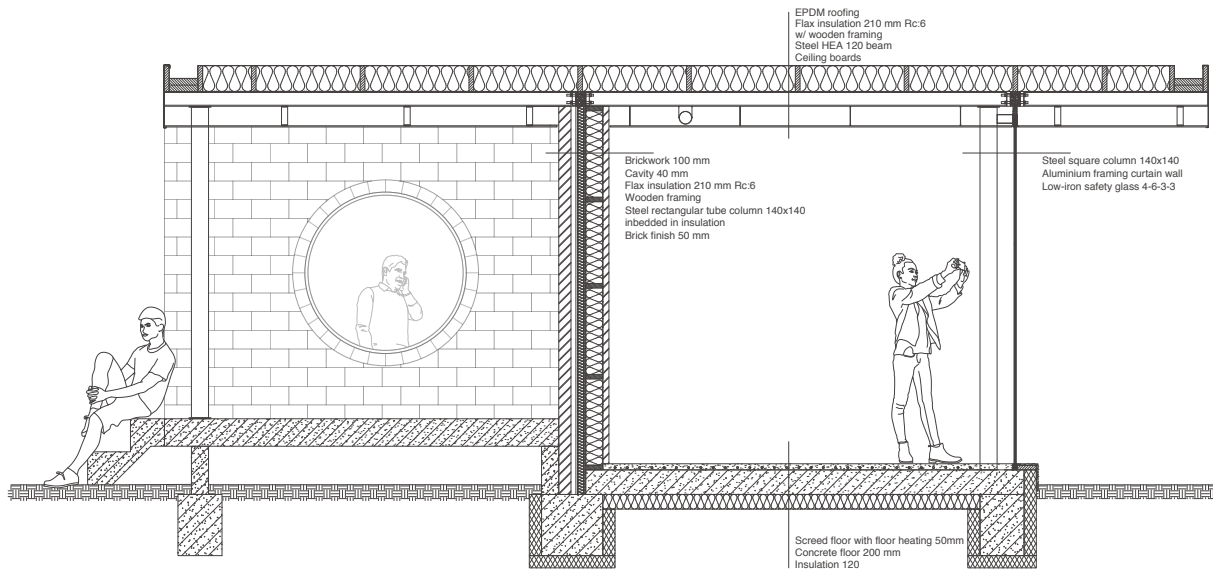
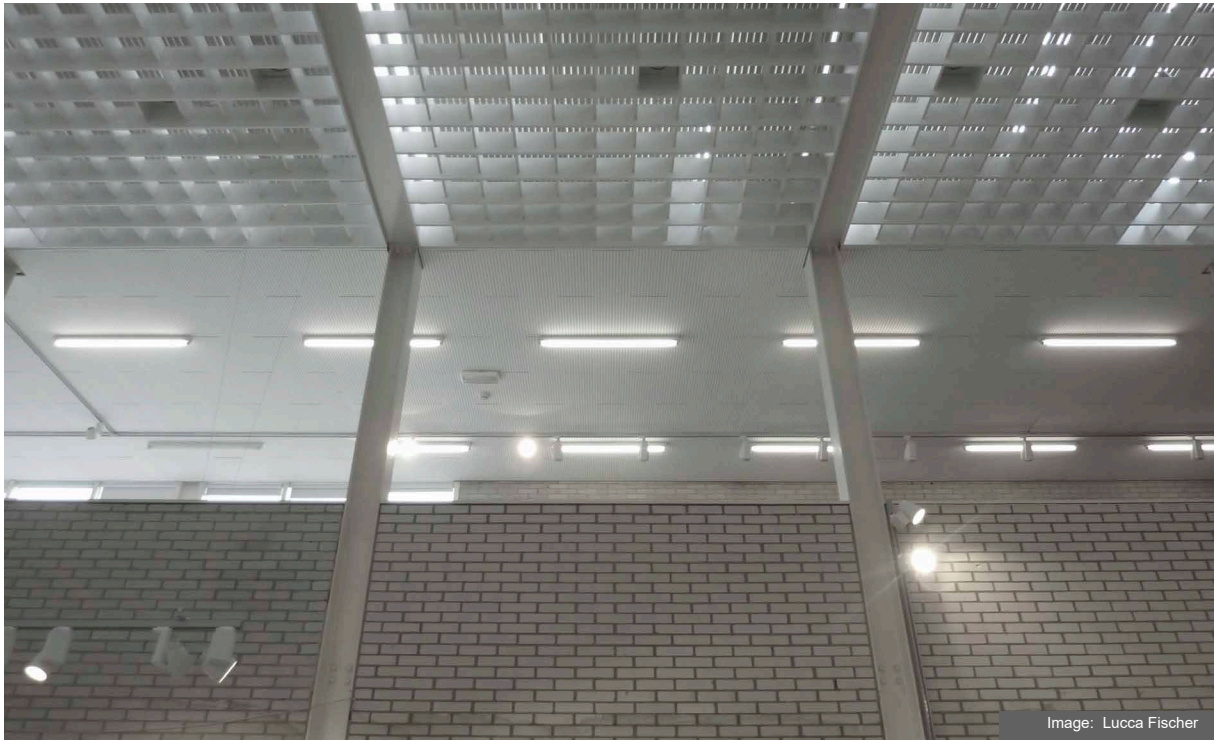


Image: Melanie Jansen

The exterior of the building is purposefully closed off from the outside to keep the suspense of discovering the inside. A few circular windows are placed inside the exterior gallery to peek the curiosity of the passerby. The outside galleries reflect the inside gallery that is the viewing point to the Zonnehof building. They also are integrated into the walking routes surrounding the building and provide shade and shelter to the pedestrians. The gallery on the parkside acts as a podium, this way it interacts with the park.

PART 4

SUSTAINABILITY



Sustainability

The UN defined sustainable development in the Brundtland Report (1987) as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” It is based on three pillars which are environmental protection, social development and economic development.

The topic of sustainability is a highly topical issue in architecture, and it is noticeable in many areas that are more or less obvious.

New buildings should be constructed in a way that conserves resources and consumes as little energy as possible. On the one hand, different materials can be used that have a low energy balance and can be sourced as locally as possible, but on the other hand, the disposal and recyclability of materials also plays a role. Concerning the energy consumption of the building, the source of the energy and the amount of energy needed must be taken into account. Sustainable energy or the reuse of heat can be an option but also sustainable methods of energy storage and materials that save energy by naturally storing or balancing heat and humidity.

But not only the energetic values must be

considered. Sustainability also makes itself felt in the way it is used. A building that can be used flexibly needs to be converted less often, and a building that also inspires visitors about sustainability or brings them closer to this topic makes a social contribution.

The use of existing buildings, such as the Rietveld Pavilion in this case, is sustainable in terms of the conservation of resources from building materials. However, older buildings are often in need of improvement because of their poor insulation values and high energy consumption due to outdated technology. When converting listed buildings, however, care must be taken to ensure that this energy optimisation is not at the expense of the building’s recognised values worthy of protection under heritage aspects. If this is the case, a precise assessment must be made.

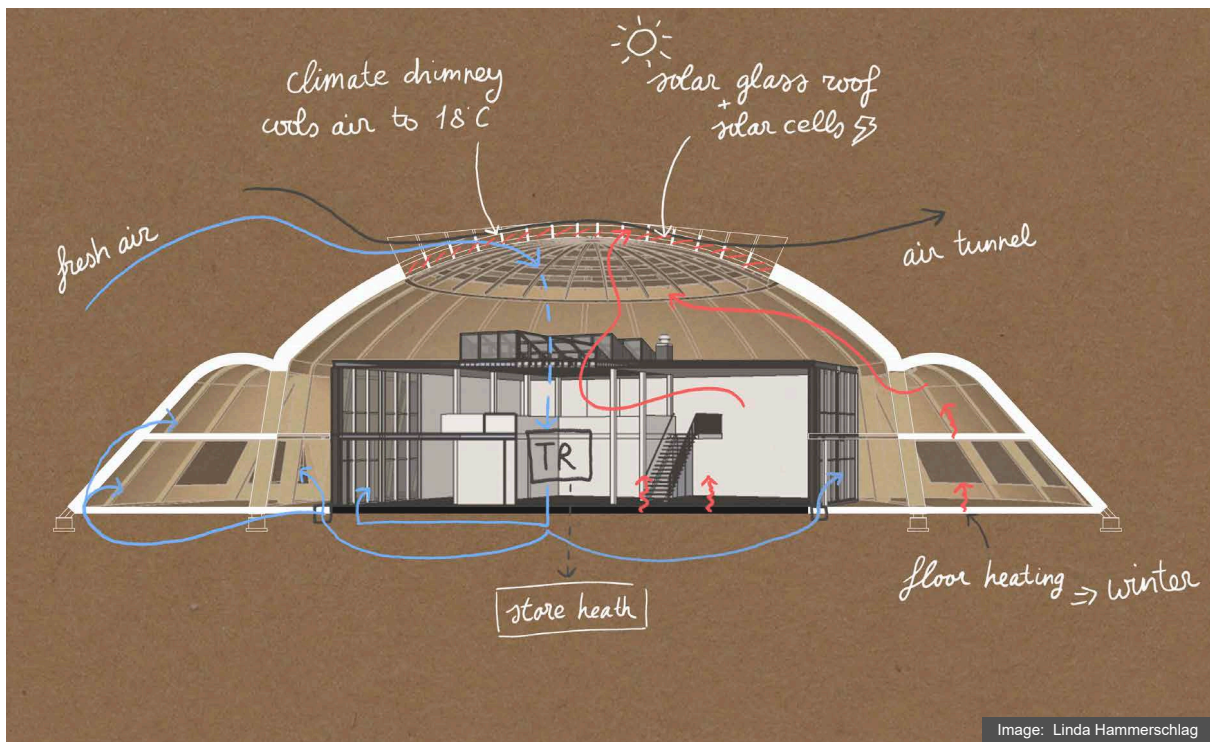


Image: Linda Hammerschlag

General approach

During the design process I realised that I wanted to focus on what it means to create a sustainable building and how to make sure that the virtue behind the design does not interfere with the architectural quality of the building. Sustainability has turned in an empty term because anyone can claim anything to be sustainable for the smallest reasons. People often fail to include every aspect that leads to the final product and the way it might be disposed of at the end of its lifecycle. With this in mind I tried to focus on the before, during and after phases of both the Zonnehof and the extension. After visiting and analysing the Zonnehof it seemed to me that the original vision for it was focused on the interior experience of the building. The composition of the window openings and coloured planes in the façade help guide visitors towards the entrance of the pavilion. The materials used both inside and outside show the effect these specific materials have on the spatial experience. What I found interesting is that it is visible how these materials have aged over time and how some brick walls have structural damages. As architects it is helpful to see how the architectural decisions made by Rietveld impact his design. With this in mind I decided that in order maintain the architec-

tural value and heritage of the building, it would be best to leave the building as is and build a new structure that encapsulates the Zonnehof. With this the pavilion becomes an art installation itself. The dome functions as circulation space and as a place to see the full exterior of the pavilion as the floors above the ground floor are made of glass. The smaller domes on the side are spaces for social functions and the temporary exhibitions. By using this transformation strategy the pavilion does not lose parts of the story and maintains the values residents, visitors and admirers of Rietveld see in the pavilion. The concept for the Kunstberg is to combine both the preservation of heritage and the connection with the social context of the location. In the current developments of the area more housing is added which means these people need more outdoor spaces they can use to build a social connection with the area. These changes are temporary as in 50 years new developments might take place. Therefore the extension to the Zonnehof is a temporary building which requires minimal and reversible changes to the Zonnehof in order to connect the use of the interior spaces. The new construction is made of a CLT structure that is made with dry connections so that in the future when new plans are made for the area or the Zonnehof, the structure can be demounted. Af-

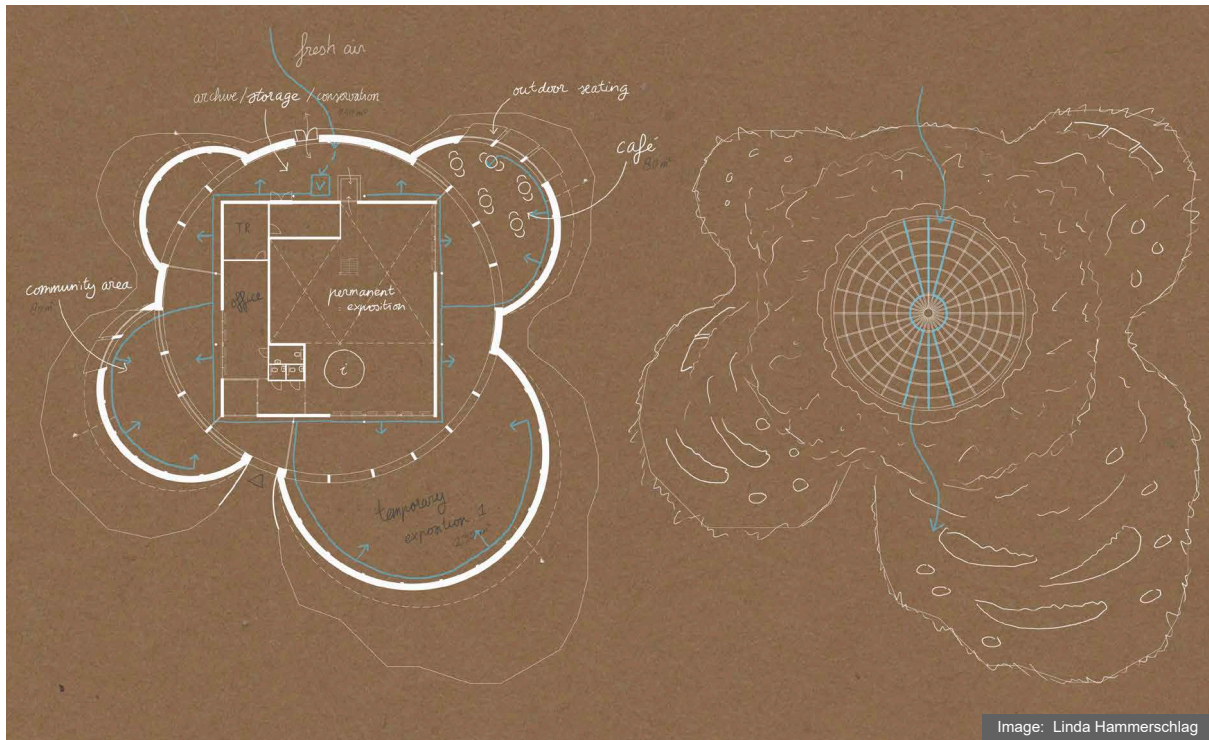


Image: Linda Hammerschlag

terwards the structure can be used somewhere else or pieces of it can be used in new projects. Beside sustainably sourcing and using materials, the structure provides place for social interactions and helps grow the social cohesion and strength of the area which is important when we talk about sustainability. Because the reason we want to build sustainably is because we care about our social and ecological environments. The new structure provides interior spaces such as a café and a community area where local residents and visitors can come together for activities. On the exterior the vegetation of the park continuous onto the façade of the structure and therefore the extension does not take away vital outdoor space and also provides more different uses of the park such as play areas, intimate seating spaces and urban farming on the south façade.

The diagram above shows the climate system that is used to passively ventilate, heat and cool the building. This climate system is based on the earth, wind and fire system developed by Dr. Ing. Ben Bronsema, it uses three components that combined make a healthier, eco-friendlier and more energy efficient system than traditional systems. The main components are a Ven-

tec roof, climate cascade and a solar chimney. Because the structure is a dome these components cannot be directly translated into the design. It took me a while to figure it out but I managed to use the design the components on my building to work in a different shape but a similar way. In the section you can see how the top of the dome is a large structure made of two layers of glass. In the glass roof there are air tunnels that create a difference in air pressure in the roof and the building which will bring fresh air into the building and draw used air out of the building. The fresh air can be cooled down, heated, dehumidified or humidified in the ducts placed in the walls of the construction. The air is transported throughout the new building in ducts that go around the foundation of the Zonnehof. Because the concept is to make minimal changes to the pavilion, the existing ventilation ducts are used inside the Zonnehof. With this system the building can be ventilated, heated and cooled in both the winter and the summer while maintaining control on the air quality of the building which is important in museums and exhibition spaces. In the end the Kunstberg is made up of a structure, climate system and exterior and interior spaces that make it sustainable on multiple aspects and also add to its architectural quality.



General approach

This design of the new building places a high value on sustainability and heritage conservation.

After an extensive analysis of the values of the Zonnehof, it was decided to plan a building which is placed in some distance from the pavilion instead of a direct extension. This has the advantage that the facade and cubature, which are classified as particularly valuable from the point of view of monument protection, are not affected. Additionally, by choosing this location, the existing trees on the property can also be completely preserved. This has a positive effect on flora and fauna of this area but also on the spatial atmosphere of the park.

With regard to the design, Rietveld's approaches used in the original building were further pursued and reinterpreted: The design grid was continued, the paths through the museum are guided by light penetrating from the outside and an interplay of spaces of different proportions was created in the park and the new building.

Further one of the focus points was on sustainability. Several aspects were taken into account: The

materiality, vegetation, modern technologies for energy generation and conservation and the saving of emissions.

Material

The newly designed building consists of rammed earth walls insulated with glass foam made from waste glass. The materials are separated through a geogrid for the possibility of a later separation for recycling. For the choice of material the Alnatura headquarter in Darmstadt (Germany) by Haas Cook Zemmerich was analysed in its effectiveness and served as a reference project.

The material rammed earth or clay is completely recyclable, alludes to the materiality of the Zonnehof (brick as burnt clay) and also takes into account the facades of the surrounding buildings made of, among other things, stamped concrete. Further it can be sourced in several places in Europe and also in the Netherlands in the north of the planning site and balances humidity and temperature inside the building, which is necessary for the valuable exhibits. It also filters pollutants and ensures a pleasant indoor climate.

To ensure that the material would withstand the

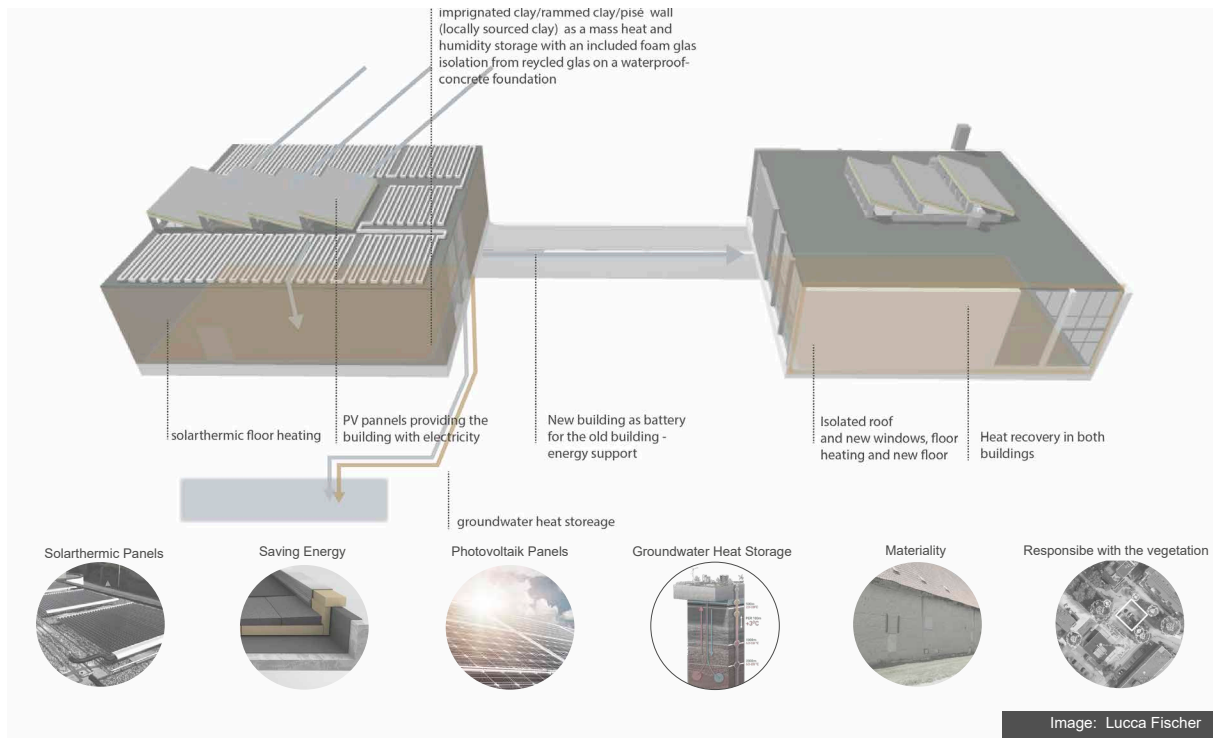


Image: Lucca Fischer

frequent rainfall in the Netherlands, two options were considered. Chemical sealing or impregnation of the surface or mechanical drainage of the water via regular erosion brakes. The latter solution was chosen because impregnation makes possible recycling more difficult.

Energy

For energy provision, solar panels are mounted on the north-facing skylight on the south side producing energy. On the remaining roof surface, capillary absorbers provide heated water and feed the wall heating. The renewable energy is also supplied through an underground service walkway to the Rietveld pavilion. Surplus thermal energy is stored underground in the groundwater and extracted by a heat pump. In this way, the new building acts as a kind of battery for the historic building.

Because the necessary energy can be fully sustainable the old building only needs to be slightly energy-optimised. This prevents that the old building would lose characteristic elements like e.g. the textured surfaces though necessary insulation.

Vegetation

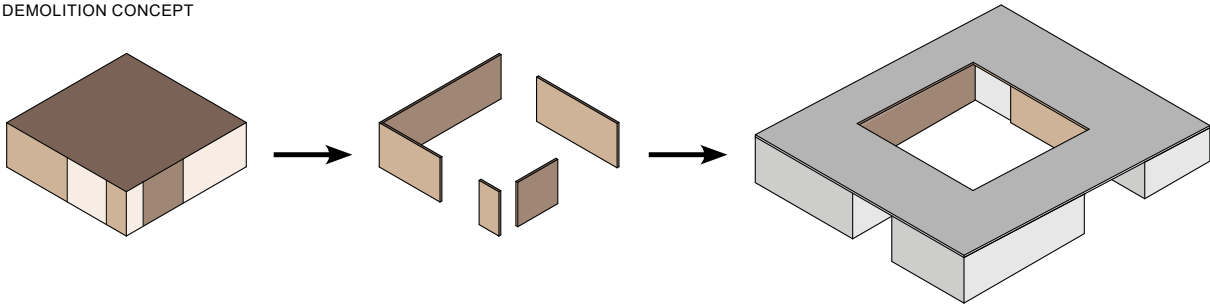
The existing vegetation in the park was completely preserved and sealed areas were further re-naturalised to create a sculpture park framed by the two buildings. The position of the buildings is also intended to improve the routing of the path, which until now leads directly past the Rietveld Pavilion without interrupting it for the appreciation of the design.

All in all, this ensures greater sustainability on several levels in the surroundings and in the building itself, while at the same time achieving a modern interpretation of design as an appreciation of cultural heritage.

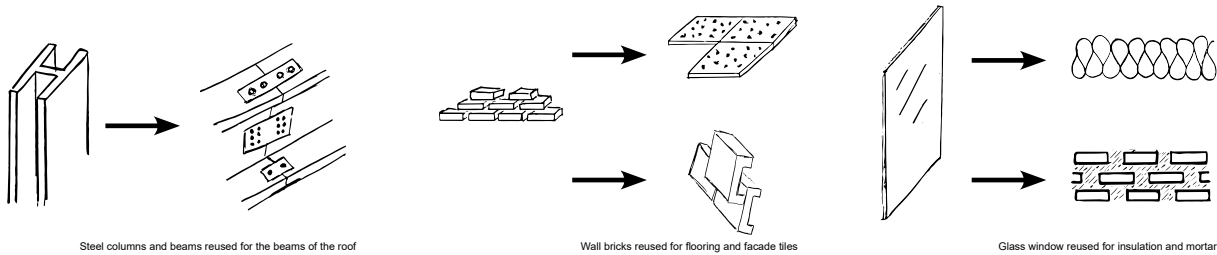
DESIGN PLANS

ADDITIONAL TO THE EXHIBITION

DEMOLITION CONCEPT



REUSED MATERIAL FROM DE ZONNEHOF



Steel columns and beams reused for the beams of the roof

Wall bricks reused for flooring and facade tiles

Glass window reused for insulation and mortar

Image: Alice Sikiaridis

Position on heritage

This project looks into the limits of heritage and the death of buildings. Many buildings are torn down on a daily basis and demolition is a reality. It poses the question: how can we preserve architectural heritage while still demolishing a building?

This project aims at giving an alternative to conventional preservation and renovation methods by setting up a framework for conscious demolition. These criterias concern material reuse while also assessing how spacial and architectural qualities of the existing building can be replaced or upgraded in a new one.

Framework

Before any project could be imagined, a assesement was undertaken. A framework of the existing building has been established with all its qualities and defaults.

The heritage of one place is more than its physical aspects, it is also about its intangible qualities. For instance, the space sequencing of the museum with its different heights and shapes of rooms, as well as the routing for visitors and the natural light

were elements important to observe.

How could the same values of the original building be experienced in another one? This was one question that was explored in this project either by replicating, replacing or upgrading the different qualities De Zonnehof had to offer.

Material Choices

Instead of throwing away the different materials and elements that constitute De Zonnehof, the new building will reuse the existing bricks, glass and beams for the new roof, floor and walls. This way, parts of the old De Zonnehof will still have a strong presence in the new and the heritage of Rietveld's pavillion will be conserved.

The new building would be constructed in a cradle to cradle approach with a design for dissassembly method safeguarding the materials lifespan for further projects or extentions.

When looking at the facade, the brick walls will be converted into tiles that are easily assembled and can be replaced in case of damage. The inside flooring will also reuse the bricks and other



materials to form a kind of terrazzo. The shaded roof structure will use the existing beams that will be reinforced, glass panels and cloth will be added to attenuate the light allowing indirect light inside the museum.

The project ensures greater sustainability on several levels in both surroundings and in the building itself, while at the same time achieving a modern interpretation of design as an appreciation of cultural heritage.

Spatial Organisation

De Zonnehof is torn down and replaced by a new art center designed to be surrounding the original footprint, allowing De Zonnehof's facade to remain while also forming an open courtyard. This will provide the museum access to an open air space but also give a calmer path for the bypassers. Designed according to typical pathway used by visitors, the museum will grant a routing where they will not have to turn back on their tracks. While visiting the temporary exhibition or permanent collection, the users will also experience the original walls and beams of Rietveld's museum.

Connecting spaces that are located «on» the

footprints of the original De Zonnehof will be made out of glass in order to keep the foundation visible. One of these spaces will be neighboring the museum's library and archive, granting a sitting area with the view to the courtyard.

Details

Details have been carefully designed in order to notice how the new project meets the older monument. For instance, trying to keep the same techniques used by Rietveld for the connections of the roof, but also more contemporary details such as the new wall that is composed of a ventilated facade with double air chamber and a clap to block the warm air from solar radiation in winter.

The project is reconsidering the limits of heritage and how a monument could keep its heritage, once the building is destroyed for any kind reason.

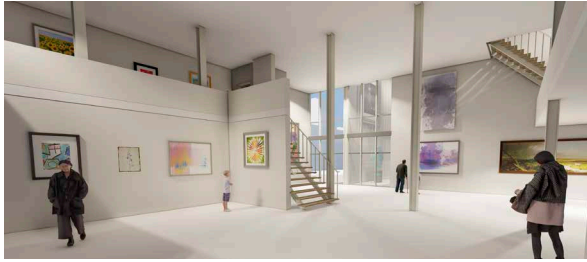


Image: Anneke Groeninx van Zoelen

Approach & Starting points

The result of analysis and research into Rietveld's 1950s pavilion 'De Zonnehof' in Amersfoort, led to a transformation framework in which every aspect is valued. This framework highlights the essence of the building: simplicity and practicality of space and light.

My starting points became apparent and the two main aspects are 'Respecting the heritage' and 'Connecting'. This is covering the grid and materials that Rietveld used, and Rietveld's design principles such as using natural light, the spatial quality, and the route through the pavilion. Furthermore, there has to be a better connection with the park, also from within the pavilion, using sightlines in addition to the design methods.

The aim is for the pavilion and the park to become a destination for people.

The route

The route through the museum and exhibition follows the natural light and creates extraordinary sightlines. Everything has been thought through to provide the visitor with a unique experience.

The main entrance remains on the north façade at the original place, only the entrance is now more prominent and inviting. The entrance hall is equipped with toilets, reception, and even a guarded wardrobe. First, you will enter the museum, which, from the inside, has remained as intact as possible. An elevator has been added to make the pavilion wheelchair-friendly.

After the museum part, you will be surprised with a second floor where the exhibition space begins. You are drawn to the large window and you have the urge to see the breathtaking view over the park, followed by an exciting stairwell with a new dimension in the space: a small atrium for natural light. The tall tree herein provides an inextricable connection with the park. Art can be exhibited dynamically here using the large walls of the stairwell that leads back to the ground floor. Now the exhibition space is especially for sculptures and the connection with the park is emphasized by the transparency between the indoor and outdoor gallery, which Rietveld had also originally designed in his first proposal.

The route ends in the museum shop, but for the full experience, you walk through the outdoor gal-



Image: Anneke Groeninx van Zoelen

lery, which can be visited by everyone free of charge, to the public café on top of the gallery for a nice drink. This place can be rented separately from the pavilion, and a lot of things will be organized here for the neighborhood.

The office for the staff is in the back of the building, provided with private toilets and a meeting room. The library and archive are on the first floor and the conservation studio, containing more storage space, can be found on the second floor, all accessible by elevator. The conservation studio has the advantage of a huge curtain wall on the north side, so there is no direct, but always natural light coming in.

Structure & Sustainability

The load-bearing structure fits exactly on the grid. A new foundation with columns will support the extension of the building. The new glass façades and curtain walls are made of special 'monumental glass'. The original structure will be reused and a new brick façade covers the building so that it appears as a whole.

There is a green roof to provide extra insulation and purification of water, and, obviously, it con-

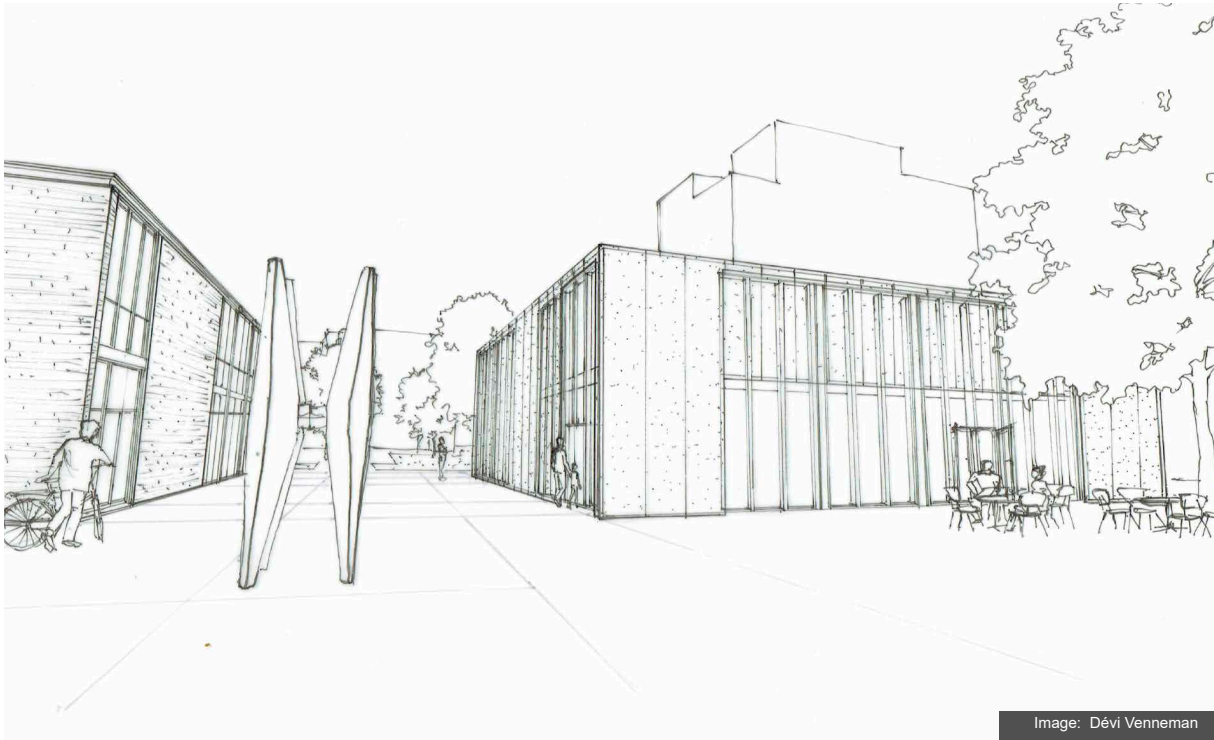
tributes to the connection with the park. Rainwater is collected and solar panels on the roof contribute to the use of the heat exchanger and heat pump which provides the cooling and heating in the building. The greywater will be used for flushing the toilets, the sprinkler system, and water for plants. Fresh air comes in through the original chimney to the installation room where the heated or cooled air will be blown into the rooms and the air gets extracted through ventilation grilles.

De Zonnehof – a destination

Respecting Rietveld's design principles, and thus respecting the heritage, not only led to an integrated design for the pavilion but also taught me a lot.

The transformed pavilion with among others its sightlines, glass façades, inner mini-courtyard, the outside gallery, and public café, has made De Zonnehof and the park a destination for both visitors and local residents.

It is a magnificent place where you can enjoy art and nature!



General Approach

A careful analysis and value assessment of site and building acted as the rooting for the concept and design of this plan for the renovation of the Zonnehof Pavilion called; A Modern Day Twin.

On a city scale the central location namely; the proximity to the city centre, central station and other facilities such as museums and shops came forward as leading qualities. On the building level the key elements of the design were sought to be formed by the spatial experience of the interior, consisting of the balance between concrete limitations and transparency, light, ratio and proportion and material finishes. However in the current situation the pavilion's central location was not used to its potential and neither was its physical state.

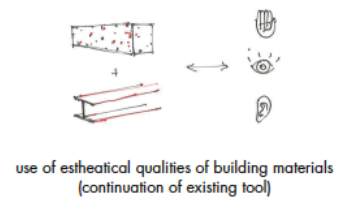
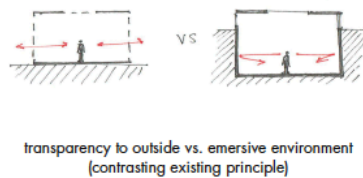
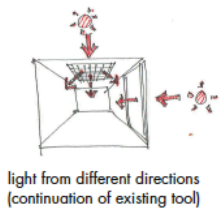
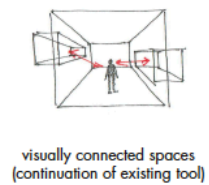
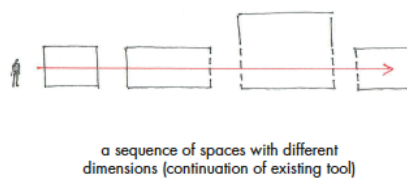
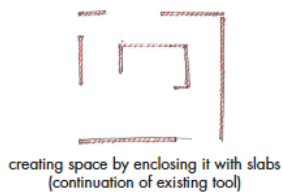
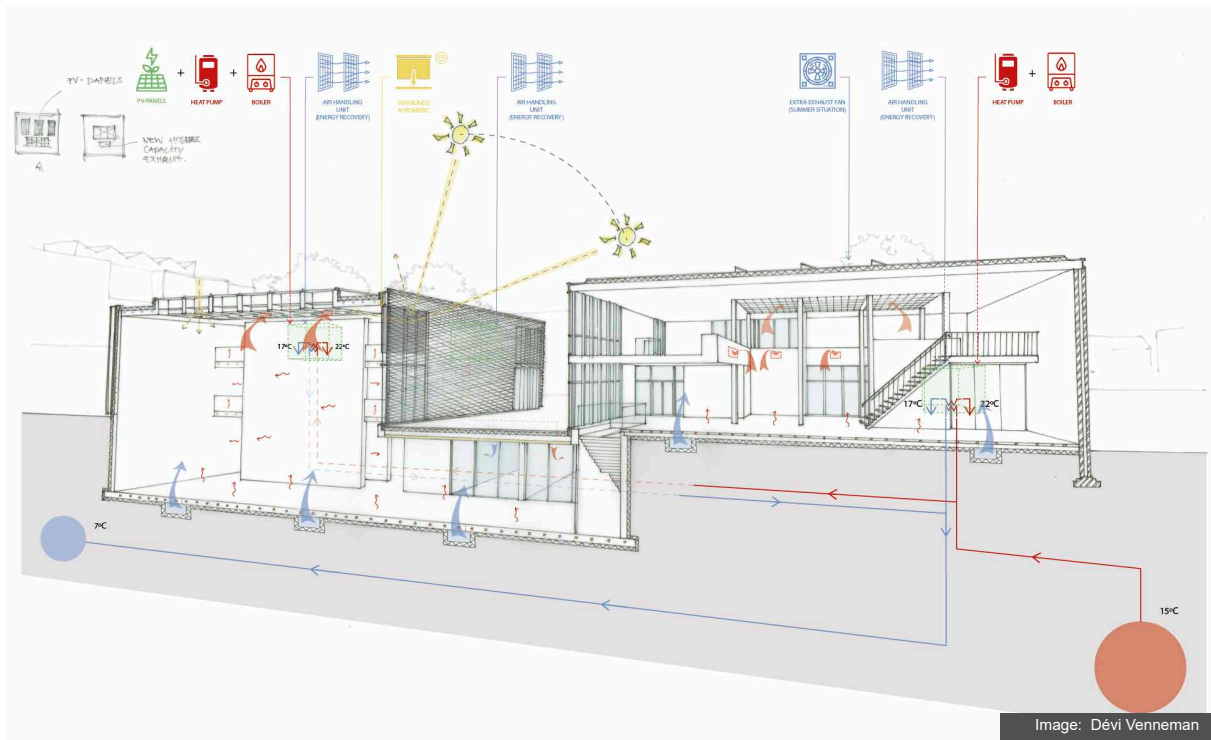
The renovation strategy was to; *mend & complement*. The pavilion is a beautiful historic object that has been very well loved and therefore shows the marks of use. We recognised its qualities and the life it has had and mend it without disguising where it has been fixed. The building becomes more beautiful for it while being updated to the current (practical) requirements. To bring the Zonnehof to its full potential we complete it by

adding an element fitting to the historic pavilion. The design strategy was to continue with similar design tools, but offer a spatial experience that contrasts the existing one.

On site level a square, terrace and second volume are introduced. The square and terrace weave the pavilion to the urban landscape and network of facilities. It gives the renewed museum a platform and voice within the city and makes it a destination of its own.

The second volume is shaped as a very literal modern twin. The facade continues in the grid and language of Rietveld's design, but a second semi-transparent layer made out of a perforated metal cladding lightly veils the volume in a modern cloth. Next to helping with daylight regulation it ties the building to its surroundings as it cuts up the transparent parts into a more human scale emphasising its entrance function.

As on the outside the pavilions appear to be a pair, underground they are actually connected. The new volume encapsulates a new and bigger entrance area, café, meeting and staff rooms and a better regulated exposition space. The connection allows for the sequence of spaces, so carefully designed by Rietveld, to continue.



similar design tools, *different* spatial experience



Exhibiting the Zonnehof

The Zonnehof Pavilion is not just a regular place where exhibitions can take place: the building has an important place in architectural history. This due to the special and coherent design of exterior, interior and furniture Gerrit Rietveld made for the pavilion, and it's place in his oeuvre and as one of the most characteristic buildings built in the 50s in Amersfoort. Therefore, this design for a museum for design, architecture and interior aims to show this duality; the building is (literary) placed in a showcase, and in the façade of the extension, fragments of the history of the pavilion are shown on screen-printed glass.

The existing pavilion remains as much as possible original, both in function and materiality. For example the exhibition space keeps its original function, as a space for temporary exhibitions, in order to preserve the openness as one main characteristic of the building, and the same goes for many of the other spaces. Parts of the building that have been modified are restored to their original state. This is the case for among others the large translucent windows between the exhibition space and the (former) office. The sober materialisation of the building is respected and

the grid systematic grid Rietveld used continues to determine the layout of the room, as it did originally.

The new extension consists of a simple volume with the same sizes as the existing building, and is placed above it. This form was chosen because the simple shape was also one of the starting points for Rietveld's design, and therefore a valuable aspect of the building.

The placement above the existing building prevents the new volume from blocking the view to the pavilion, and makes it possible to experience both the new and the original part of the building at the same time, as a new layer in time. The new volume contains a new space for the permanent collection of the museum and several serving spaces such as the offices and a storage space. It has a steel structure which is connected to columns placed behind the glass façade. Therefore, no structural connection to the existing building needs to be made and the addition is reversible. Between the steel structure, windows are placed. On these windows several images of designs Rietveld made for the pavilion are shown via a screen-printing technique. In this way, the new volume tells about one of the most striking

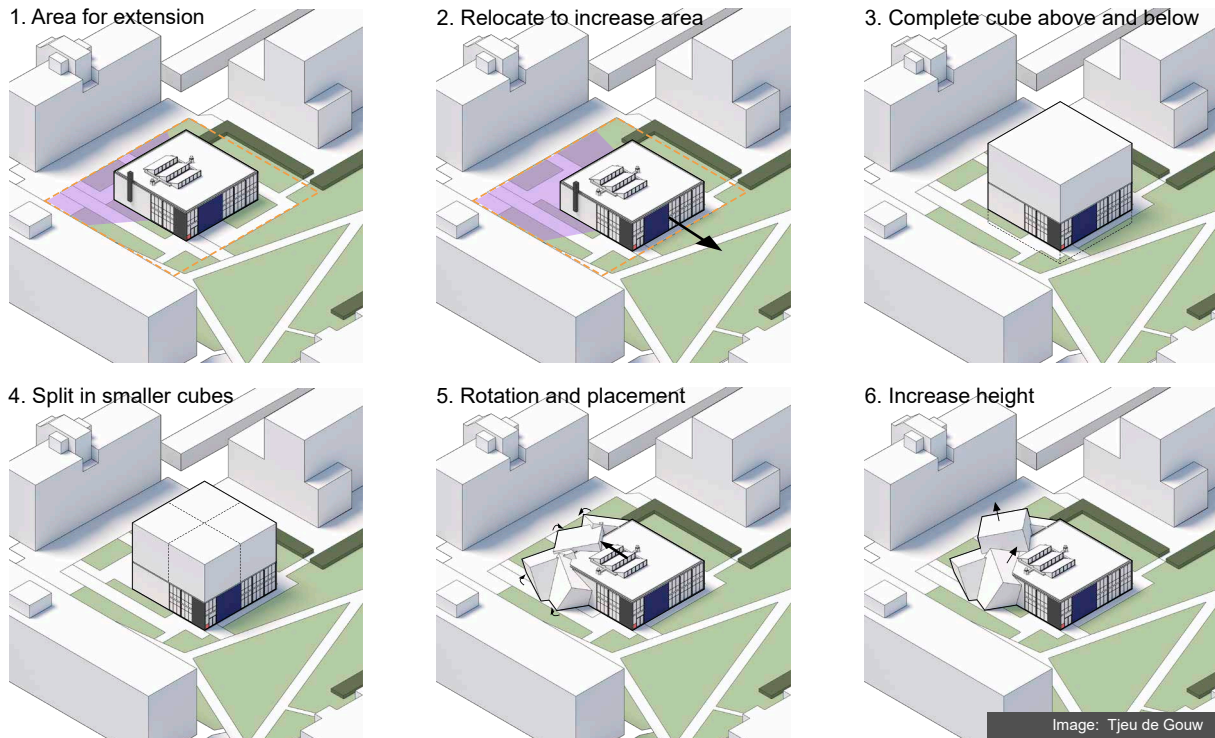


aspects of the history of the building, that wasn't visible yet; the story of it how it was designed by Rietveld.

The glass facade placed around the existing building and the new addition does not only function as a showcase for the building, but also has several other functions and benefits. In the first place, it preserves the Zonnehof pavilion. It protects the relatively simple (and therefore vulnerable) structure of the building from rain, wind and other weather influences, and thus saves it from (further) decay. Besides this, the second facade acts as an insulation layer for the building, which improves the sustainability of the building and makes it possible to regulate the indoor climate better. This also makes it possible to exhibit more vulnerable art pieces in the pavilion. The heat generated behind the glass facade in summertime is collected and stored via a heat-cold storage system and used in wintertime.

Between the facades a walking route, a enclosed terrace and a freely accessible exhibition space are created. The walking route connects the different floors of both the existing building and the new extension. Also an elevator has been added here. In this way it is possible to experience as

much as possible of the building during a visit. The walking route has a yellow colour, that refers to the pavement around the building, which was also part of Rietveld's design. The terrace and freely accessible exhibition space attract extra visitors to the building to enjoy the exhibitions and the building.



Concept

After a value assessment and transformation framework to determine the valuable aspects of De Zonnehof and its context, a location for the addition was selected, as can be seen in the first image of the concept diagrams. The new added volume is connected to the back side of De Zonnehof, while that facade contributes less to the characteristics of the building than the other facades, while this one is completely closed and connects to the private functions of the building in the current situation.

However, the space between De Zonnehof and the building of Luzac behind it is not very wide. To increase the area suitable for the extension, while remaining enough space between the buildings, De Zonnehof will be repositioned on its plot as indicated in the second step in the images above. Cubical shapes are often used by Rietveld in his designs and therefore the starting point for the volume of the extension is the completed cube of which De Zonnehof is a part. By using this shape as a starting point, the new volumes are based on the same grid Rietveld used in his design for the building. Part of the cube is located below the building to create a basement. The top volume is split into four smaller cubes as can be seen in the fourth step. Subsequently, these four

smaller cubes are rotated in various directions and placed on the intended area for the addition to the building. The height of the cubes is increased in the new position to improve the usability of the interior spaces and create a transition between De Zonnehof and the surrounding buildings.

New location

The new location is based on the analysis of the location over time, looking at the sightlines from and towards De Zonnehof. When De Zonnehof was built, it was located in a park on the inside of a building block, but at that time was mainly surrounded by green and was visible from the streets surrounding the block. Over time, more buildings were constructed in this park and De Zonnehof became part of the buildings surrounding the park instead of the feeling of a pavilion placed in the park. These new constructed buildings also decreased the sightlines towards the building, which makes the buildings hardly visible from the surrounding streets looking into the block. In the new situation the building is repositioned into the park and thereby pulled out of the building line and into the public space, which enhances the public character of the building, reinforces the connection with the park and improves its visibility.



Spatial arrangement

The relocation of De Zonnehof pulled the building into the public space of the park, therefore the existing building volume has the most public character, which also translates in the functions. In the existing volume the entrance and café are located on the ground floor. Next to this, there is space for a museum shop or the exhibit artworks as a preview of the exhibition in the extension. A library and archive are located on the mezzanine in De Zonnehof with sitting spaces to read or work. The basement extension is used for the temporary exhibition, while this space can adapt dependent on exhibitions due to its shape and open plan. The spaces in the cubical extensions are mainly used for the permanent exhibition, while this exhibition will not change much over time. Next to the exhibition space, are a meeting and staff room located in the extension on the ground floor and a conservation studio, storage and installation room in the basement volumes.

Facade design

For the design of the facades of the new volumes, all buildings designed by Rietveld in The Netherlands were plotted on a map and connected chronologically. The constructed pattern is copied and wrapped around these new volumes. These

lines determined the position and angle of the windows. The dimensions of the windows and stainless steel cladding refer to the curtain walls of De Zonnehof. Contrastingly, the dimensions of the glazing in the existing building are used for the dimensions of the stainless steel panels and the other way around is the window size related to the closed horizontal and vertical parts of the curtain walls of De Zonnehof.

Dominance

On the exterior, the new additions seem to be dominant over the existing building, while it looks like the added cubes cut through the existing walls and continue on the interior. However, on the interior it becomes visible that the existing building remained the most important building volume, while the new volumes do not cut through De Zonnehof, but only enclose the building. To enhance this dominance of the existing building, the new volumes have a stand alone structure, disconnected from the existing volume while only 'touching' it on the places where the two connect. This dominance is enhanced in the detailing. The ceiling and floor finish stop slightly before the existing wall of De Zonnehof to create a small seam to enhance the disconnection of the old and the new.

Student Reflection on MSc1 Architecture & Heritage De Zonnehof

In this short and personal reflection there are many questions that will be left unanswered. Questions, that are however, important to ask ourselves when designing a renovation/preservation/restoration project.

Why is a building from Rietveld spontaneously an icon?

While the answer seems obvious for some, I still wondered and asked myself how much the name "Rietveld" impacts its heritage value. If Rietveld was not as notorious, would his building De Zonnehof still be considered an icon? Probably, but for other reasons; such as the care for detailing or spatial organisation. However, when the project started in the MSc1 studio of Architecture & Heritage, the Rietveld name was directly mentioned to us. In a way, it made it look that because he designed it, it should be protected, and we had to find the reasons why.

So, how do we recognize buildings as icons? And how does that, in turn, influence its values? How does a building become one? And are all

monuments, icons?

If you go on the internet, you will find different definitions describing an architecture icon as a design with grand words such as ground-breaking, uniqueness, outstanding and representative of a movement or time. Rietveld's Schröder House probably fills all these criteria. This is also the reason why icons are protected and where investments are made.

The heritage of a place is more than its physical aspects, it is also about its intangible qualities. Would there, for instance, be a way where we could still have heritage values and yet have a building destroyed for instance? While the latter can be seen as extreme, the question remains interesting. Details such as the gutter connection of the roof are indeed unique and an incredible craftsman work from the architect, but the immaterial qualities are also what makes a space special, an experience when you enter a space. In De Zonnehof, the space sequencing of the museum with its different heights and shapes of rooms, as well as the routing for visitors and the natural light are elements important to observe. The museum is filled with these qualities and calling it an icon is logical.

How does the recognition of De Zonnehof as an icon impacts its heritage value? An "icon" is seen as a symbol and, most of the time, the building becomes a museum where you can learn about the architect and what makes the building so unique. In the case of De Zonnehof, it was a museum already, and even a landmark for the city of Amersfoort. It was initially built for this reason. Nowadays, this still holds true, and people also offer it a visit because it is one of only 3 pavilions Rietveld ever made. He is an icon of the De Stijl movement and therefore his building gets impacted by it.

While this offers another reason to visit, it also helps to protect it even more. Because as we know, all buildings deteriorate with time and need maintenance, and in the case of "icons" or monuments they are protected with the utmost care, making them complex to handle because of their protected status.

As students we should try and question the assignment given to us and find the best methods to work with an iconic building, such as De Zonnehof, and therefore, perhaps the first question asked should not be a "why" question but rather: "Is a building designed by Rietveld spontaneously an icon?"

Alice Sikiaridis

CHAPTER III

EPILOGUE

The relation to the enclosed space and the boundless space have been explored in the drawings, the physical models and as a spatial construct in the mind. To be aware and to feel the spatial experience were starting points in the architecture of Gerrit Rietveld. The building of De Zonnehof and the other pavilions of Gerrit Rietveld represent a period in architectural history. The designing in the field of architectural heritage gives an answer to continuity of the existing build structure.

The design proposals of the students present many possibilities and thoughts for the transformation of De Zonnehof in Amersfoort. Some aspects like building costs, building method, or building law are not fully addressed. On the other hand, the impact of Climate change plays a substantial role in all the designs. The Sustainable Development Goals set restrictions and challenge the creative minds to explore and find new ways for designs of the future. The future of the professional field of Heritage & Architecture is presented in a glimpse by these designs.

To make a design is to imagine what could be, with all the demands in it. This imagination is powerful and essential for spatial assignments of existing build structures within the societal setting in the coming years.

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