

Tugendhat house architecture

Introduction

The Tugendhat House, located in Brno, Czech Republic, is a prime example of modernist architecture and one of the most significant buildings of the 20th century.

The building that will be talked about in this essay is the Tugendhat House. This essay will first talk about the history of the building before then moving on to the plans and sections than what materials were used in the building and how the light gets into the building, then finally I will talk about the ideas and theories I have and then compare my ideas and theories with the original ideas and theories, before finishing with a conclusion.

History

Tugendhat house is a famous architectural masterpiece placed in Brno, Czech Republic. Designed by the German architect Ludwig Mies van der Rohe (27 March 1886-17 August 1969) between 1928-1930, the residence is a prime instance of the modernist movement that emerged in the early 20th century. The house was commissioned by Fritz and Grete Tugendhat, a wealthy couple from Brno, Czechoslovakia.

The house is normally manufactured from glass, steel, and urban, which were considered progressive materials at the time of its construction. The use of those materials allowed Mies van der Rohe to create an open and inviting space.

In 1938, Tugendhat House was taken over by the government of Nazi Germany after the annexation of Czechoslovakia. During this time, the house was used as a facility for German military officers. ⁱAfter World War II, the house was left derelict for several years until it was returned to the Tugendhat family in 1945. During the years of Communist rule in Czechoslovakia, the Tugendhat House was nationalized and converted into a rehabilitation facility for autistic children, which led to the modification of its interior design. These changes were eventually reversed, and the Tugendhat House was restored to its original form in the 1990s. Since then, it was finally opened to the public as a museum in 1994, showcasing its unique architectural style and historical significance.

Since then, the Tugendhat House has been recognized as a UNESCO World Heritage siteⁱⁱ and has become an important destination for architecture enthusiasts from around the world. Its significance as a masterpiece of modernist architecture has continued to inspire architects and designers in contemporary times.

Materials and Light/ Plan and Section

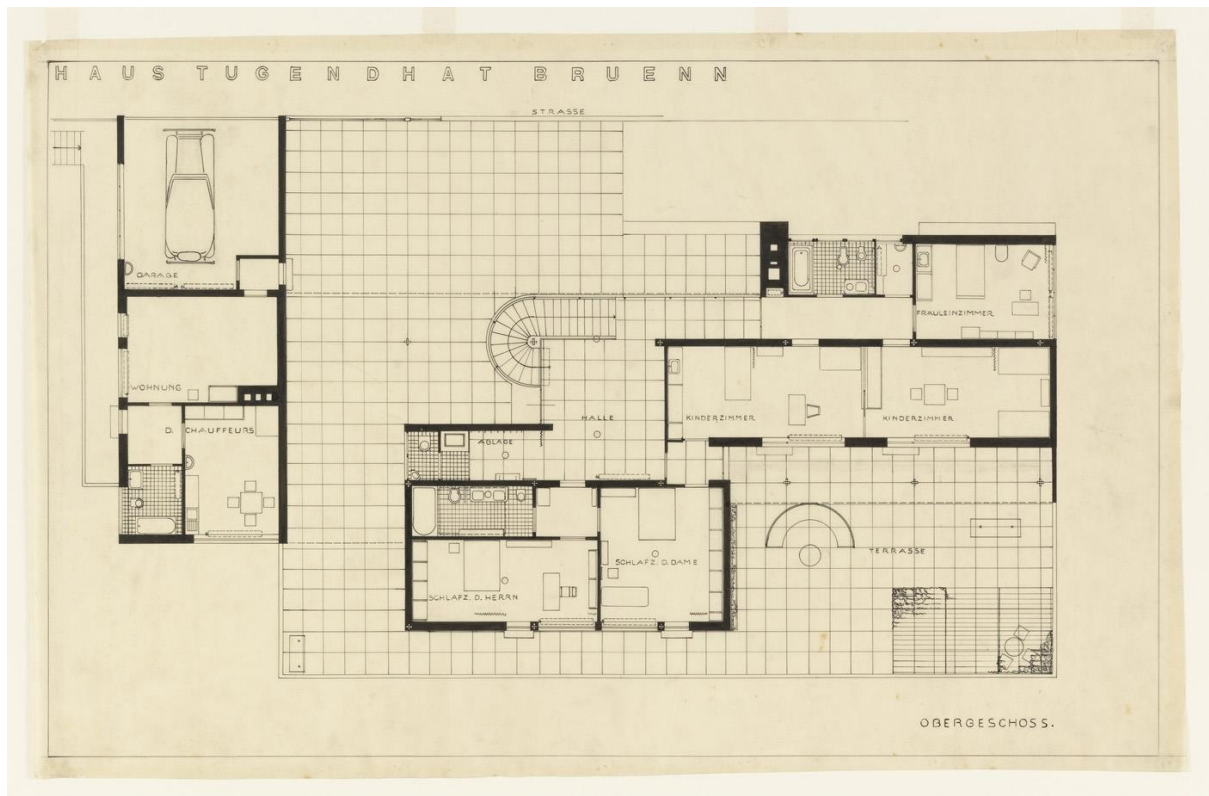
The house is organized into two levels: the ground floor and the basement. The ground floor is raised above the street level and is accessed by a flight of stairs. The floor plan of the ground floor is designed as a flowing, continuous space, with different areas defined by the placement of furniture and the use of built-in elements.

Upon entering the house, one arrives in a large entry hall, which is separated from the living room by a glass partition. The living room is the central space of the house, with a large picture window facing the garden and a smaller window overlooking the street. To the right of the living room is a smaller sitting room or library, also with a garden view. On the left side of the house, a long corridor leads to the dining room, which is separated from the kitchen by a sliding glass door. The dining room is connected to a terrace, which extends the space and provides access to the garden. Next to the dining room when it was first designed are a children's playroom and a bedroom for the children's nanny. The basement level of the house contains the service and utility areas, including a laundry room, storage areas, and a garage. There is also a small apartment for the household staff.

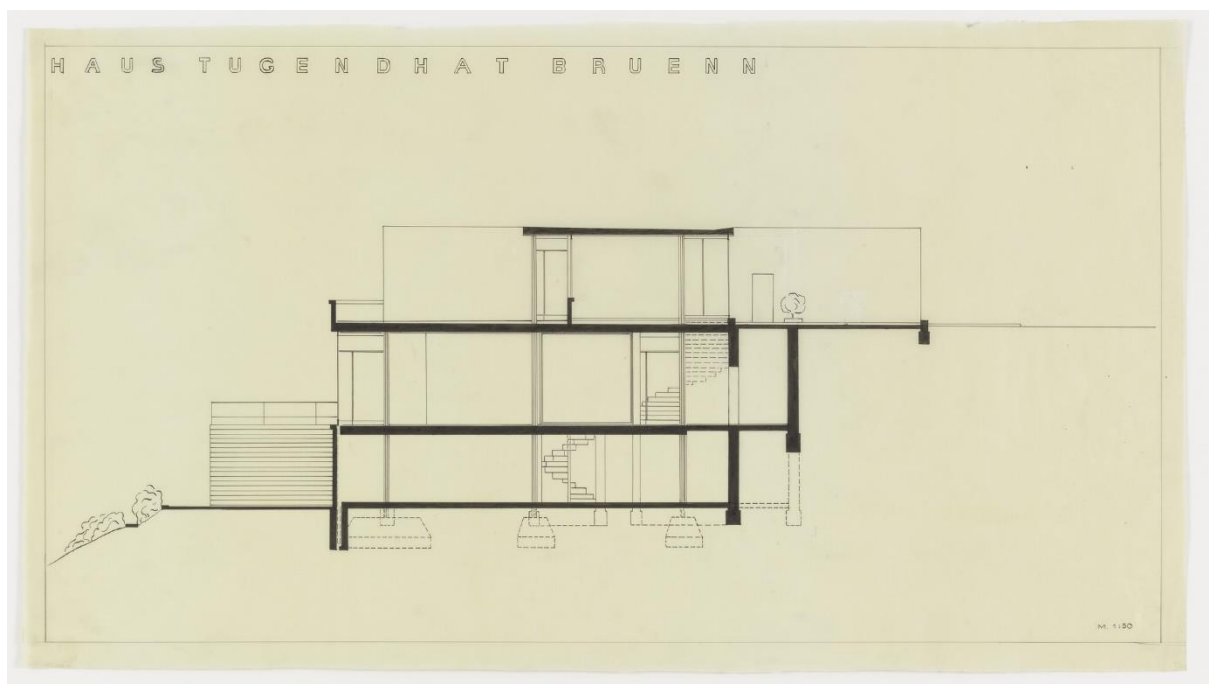
Overall, the floor plan of the Tugendhat House reflects Mies van der Rohe's modernist philosophy of "less is more," with a focus on simplicity, functionality, and clarity of form. The house's open plan and use of glass and steel construction were ground breaking for the time and continue to influence modern architecture today.



iii Picture from inside the Tugendhat House



iv basement floor plan of Tugendhat House



v section plan of Tugendhat House

Mies' declaration that "each material is only what we make of it"^{vi} describes his fundamental approach to materials.

One of the most notable features of the Tugendhat House is its use of glass walls, which combine the boundary between indoor and outdoor spaces, creating a sense of openness and transparency. The metal body of the house is another exceptional characteristic. It is not only functional, offering vital support for the glass walls, but as well it also serves a cultured motive. The exposed steel beams and columns create a sense of rhythm and order, emphasizing the geometric shapes that make up the house's layout. The usage of concrete in Tugendhat residence serves both a structural and aesthetic purpose. The concrete flooring and partitions offer a sense of solidity and permanence, anchoring the residence to the floor. The usage of concrete also provides texture and intensity to the design, contrasting with the surfaces of glass and steel within the Tugendhat house. The big windows and glass walls permit natural light to flood the indoor areas, developing a sense of openness and freedom. The interplay between light and shadow creates an ever-converting visual enjoyment, highlighting the materials used inside the construction of the house. Mies van der Rohe had a very big grasp of light and shadow, and he used this expertise to notable impact on the layout of the Tugendhat house. The manner that the light enters the house at distinct times of the day creates an ever-changing panorama of colours and patterns, making each section of the house a completely unique and memorable experience. The placements of the glass partitions of the Tugendhat house function uniquely for the time that it was made as they create a nearly seamless transition between the indoor and outside areas, permitting natural light to flood the residence and supplying lovely perspectives of the encompassing panorama. The use of glass also serves to visually make the dwelling areas bigger, making the residence seem a good deal large than it actually is.



vii inside of Tugendhat House

The Tugendhat House is a prime example of evolutionary technology in architecture. The Tugendhat House was one of the first buildings to incorporate cutting-edge construction techniques and materials of its time. The Tugendhat House was built using a steel frame and large expanses of glass, allowing for an open and airy floor plan that was unprecedented at the time. This innovative design made use of the latest technology available, allowing

for large, uninterrupted views of the surrounding landscape. Moreover, the Tugendhat House's architects Mies van der Rohe and Lilly Reich utilized materials such as onyx, exotic woods, and marble. These materials were carefully chosen for their high quality and unique aesthetic properties, which added to the overall sophistication of the building's design.^{viii}

In addition, the architects carefully considered how materials such as glass and steel would respond to lighting and weather conditions, further reinforcing their mastery of architectural technology. The creative use of materials in the Tugendhat House not only demonstrated the architects' technological expertise but also highlighted their commitment to creating an aesthetically pleasing and functional living environment for their clients.

The building also made use of other advanced features, such as an innovative heating system (underfloor heating) that used radiant heating to warm the floors, as well as a mechanical ventilation system that allowed for controlled air flow throughout the house which was able to keep the house cold in the summer and warm in the winter while also maintaining energy efficiency.

Idea and Theories

Ludwig Mies van der Rohe's previous work had all been typical brick constructions, hence this is considered his first completely modern house.^{ix} Some of the key ideas and theories behind the design of the Tugendhat House include:

1. **Functionality:** Mies van der Rohe believed that architecture should be functional and serve the needs of its occupants. In the case of the Tugendhat House, he designed the spaces to be flexible and adaptable, with sliding walls that allowed the rooms to be opened up or closed off as needed and allow for spaces to be more open.
2. **Simplicity:** Mies van der Rohe was known for his minimalist approach to design, and the Tugendhat House is a prime example of this. The building is characterized by clean lines, simple forms, and a limited number of materials, including glass, steel, wood, and concrete.
3. **Integration with nature:** Mies van der Rohe believed that architecture should be in harmony with its natural surroundings. In the case of the Tugendhat House, he designed the building to be open to the garden and the surrounding landscape, with large windows that let in natural light and provided views of the outdoors.
4. **Modern technology:** Mies van der Rohe was interested in using modern materials and construction techniques in his designs. The Tugendhat House was one of the first buildings to use a steel frame and to incorporate air conditioning, underfloor heating, and other modern technologies.

5. Spatial hierarchy: Mies van der Rohe was interested in creating a sense of spatial hierarchy in his designs, with different spaces serving different functions and having different levels of privacy. In the Tugendhat House, for example, the living areas are located on the upper level, while the service areas are on the lower level.

ⁱ The Core House by Ludwig Mies van der Rohe: A Theoretical Project, n.d

ⁱⁱ <https://whc.unesco.org/en/list/1052/>

ⁱⁱⁱ [\[history.org/architects/architects/MIES%20VAN%20DER%20ROHE/objects/Villa%20Tugendhat.html\]\(http://architecture-history.org/architects/architects/MIES%20VAN%20DER%20ROHE/objects/Villa%20Tugendhat.html\)](http://architecture-</p></div><div data-bbox=)

^{iv} <https://thecharnelhouse.org/2016/12/18/mies-van-der-rohe/upper-plan-tugendhat-house-by-ludwig-mies-van-der-rohe-image-cortesy-of-moma-archives/>

^v <https://www.moma.org/collection/works/119997>

^{vi} : Fritz Fritz Neumeyer, The Artless Word: Mies van der Rohe on the Building Art, MIT Press, Cambridge (Mass.) 1991. Neumeyer provides a comprehensive interpretation of the philosophical basis of the architect's thoughts and writings and includes a commentary of nearly all of Mies' writings, from published articles to handwritten notes

^{vii} <https://www.metalocus.es/en/news/tugendhat-house-ludwig-mies-van-der-rohe>

^{viii} [\[history.org/architects/architects/MIES%20VAN%20DER%20ROHE/objects/Villa%20Tugendhat.html\]\(http://architecture-history.org/architects/architects/MIES%20VAN%20DER%20ROHE/objects/Villa%20Tugendhat.html\)](http://architecture-</p></div><div data-bbox=)

^{ix} <https://artincontext.org/ludwig-mies-van-der-rohe/>